

THE BEST SELLING MAGAZINE FOR THE
AMSTRAD PCW

ISSUE 26 • NOVEMBER 1988 • £1.50

3000 PLUS

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ON THE MOVE

New Z88 series and
Odessa's portable PCW previewed



LocoFile

Exclusive preview of the database

that works inside LocoScript

M: group 0/MAILSHOT.LTS LocoFile.
Index: Surname+Initials
f1=Actions f2=Index f3=Item f5=Goto Item: None

Drive A:
428k used 278k Record:4

SYSTEM 3163

group 1 72k

LETTERS 22k

MANUSCRP 6k

A:SYSTEM
5 limbo fi
MAILSHOT.LTS

Title Initials Surname
Ms... W J.. Zwyczwieslacz...

Address 32a Scunthorpe Rd.....

.....

Town Grimsby...

County S Humberside.....

Postcode SC15 9UT.....

C=Create new document E>Edit document
f1=Actions f2=Disc f3=File f4=Group

v 2.20 actions:

Make ASCII file
Add dictionary

► Run LocoFile

Create LocoFile data
Squash LocoFile data

Show phrases

Drive B:
Ok use

p 1 18

mbo file

.1ST

M: group 0/MAILSHOT.LTS LocoFile setup.
f1 records in 8k file (2% free)
f1=Actions f2=Index f3=Item f5=Goto f6

Drive A:
428k used 278k

SYSTEM 3163

group 1 72k

LETTERS 22k

MANUSCRP 6k

A:SYSTEM 1

5 limbo fil

MAILSHOT.LTS

PCW9512 #SF

PHRASES .STD

SETTINGS .STD

4k

2k

6k

2k

2k

2k

2k

160k

2k

cp software

NEW

CLOCK CHESS 89

CLOCK CHESS 89 is the strongest and most versatile chess program yet for your PCW computer. It has the most advanced 3D graphics, the widest range of options, the power to play incredibly fast and the intelligence to selectively search deep into the position. CLOCK CHESS 89 has been tested against a wide range of other chess programs and has shown itself to be stronger than any of them.

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- massive 44,000 byte, user extendable, openings library
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- largest range of options, cursor controlled for easy move input
- special easy mode for beginners
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- achieves all the standard mates including those occurring with minor pieces in the endgame - well able to handle difficult pawn endings
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"CLOCK CHESS is a lively and interesting opponent. An aggressive program that keeps you on your toes ... it dices up Colossus Chess nicely" Mike Basman, UK Chess Champion.

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NEW

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BACKGAMMON - "good implementation of the game, uses the doubling cube properly, good graphics" - 8000 PLUS

DRAUGHTS * extremely strong play, 3D graphics are pleasant to use" - 8000 PLUS

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but were afraid to ask

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Address	
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Postcode	Signature	
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- Amazing tips
- Buyer's Guide

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L1SHOT,LTS	LocoFile setup.	Printed
8k file (2% free)		
f2=Index	f3=Item	f5=Goto
f6=Find	f7=Edit	
Ik free	Title Initials Surname	
MEMO	Address	Inter
LAB	Town	
INVO	County	
MAIL	Postcode	
IS fil	Phone	
iles		
2k		
4k		
2k		
4k		
2k		
4k		
2k		
LETTER	INQUIRE EG 2k EX 1 4k	
.1	2k	JACKDAWS. 2k

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SPECIAL OFFERS

Save £££! \$\$\$! ¥¥¥!

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POST SCRIPT

They who laugh last...

86

```
B: group 77 ACCOUNTS 5.00
layout 1 Pi12 L
f1=Actions f2=Layout
01.01.88 sa
03.01.88 cr
06.01.88
06.01.88
```

Locomail p15

GSX p23



Running a club

ASCII codes			
88	X	116	t
89	Y	117	u
90	Z	118	v
91	[119	w
92	\	120	x
93]	121	y
94	^	122	z

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VERTICAL HOLD

Is this a word processor? No, it is a computer.

This may not be a proposition from Wittgenstein – more like a line from a very bad Business English for Foreigners course – but it does raise a few philosophical points.

Stick a LocoScript startup disc into your PCW and it becomes a dedicated word processor. Until you reset the machine, switch it off or die waiting for LocoScript 1 to scroll to the end of your novel, it is a single-function machine. Which is probably why you bought it – you may be quite a dedicated word processor yourself.

But it isn't just a word processor – it's a computer, ie. it can be programmed to do different things. Put the right piece of software into it and it becomes anything you want. It can become a cricket scorer or a recording studio or an accountant or a Scrabble partner. It can also, more useful still, become a business partner.

Which is where vertical software comes in. It's specialist, purpose-written software: instead of buying a spreadsheet, say, and then spending three months learning how to make it do the only thing you want from it, you buy an off-the-peg program which automatically maintains your parish records or calculates your cricket scores or works out your outrageous estate agent fees or produces estimates for that building work you're doing. All you do is

buy the software, put it in the drive and follow the prompts: an estate agent's program to keep house lists would ask you questions like 'how many rooms in the house?' and 'price?' and 'date built?'. Vertical software is not cheap by nature: it isn't a mass market product and you pay three rather than two figures. But if it's exactly what you want, it can effectively do the job of one person.

Last year we appealed for examples of vertical software. At that time there were maybe a dozen examples. Now we're asking again – given the spread of the PCW in small businesses everywhere there must be plenty more vertical programs floating about. Let us know what you've written, or had written for your club, society, or business, however big or small; there will be a lot of others who'll be interested.

Rob Finley

8000 PLUS

The merry December issue of 8000 Plus will be present in your newsagents on November 24th, a gift at £1.50. They won't be stocking up for long – order your copy now!

Tipoff tipoff

The 'Tipoffs' section in 8000 Plus is one of the most popular of the whole magazine – in fact from this month we're making it a four-page feature, giving you more information in greater detail and with more illustrations.

Last year, for the benefit of readers who couldn't get hold of our back issues (many of which

are now sold out) we reprinted the tipoffs from the first six issues as *Tipoffs 1-6*. In response to the hundreds of requests we've had from new readers asking for a similar compilation of tips from the next eighteen issues, we're putting together all the tips we've ever run from issue 1 to date.

Rather than just re-run old material, we want to cater for all

you owners of 9512s, LocoScript 2, Mini Office, etc. etc. so we're completely revising and re-illustrating all the earlier tips, and the book will be split into sections – LocoScript 1, Protext, BASIC etc. for easy reference.

It's therefore rather a big job but we hope to have it ready for you soon after Christmas.

New faces of '88

Joining us in the editorial department of 8000 Plus is Bath's battling local boy Steve Patient, fresh (having spent a long time out in the cold world of freelance writing) and determined to improve on the existing high standards – would he have joined us otherwise?

We hope he will bring to the magazine not just his way with words but his interest in those aspects of CP/M+ so many of our readers are just beginning to discover. However, we will do our best to curb his enthusiasm for

delving deep into the bowels of the machine. Despite entreaties he refuses to part with a picture of himself in a bikini..

Next month

- Christmas stocking ideas plus
- LocoScript 2 vs. Mini Office
 - Test your PCW IQ
 - LocoMail wallchart
- Four more pages of invaluable tips
- Assembler for beginners (honestly) – a new series on writing machine code
 - The complete buyer's guide to Databases, Comms, Educational and Programming software
- ...and lots of other Christmas goodies!

Public Health Warning

Some time ago we published a cautionary note about the Mira Group of 577, Huddersfield Rd, Dewsbury, who advertised various services for PCW owners.

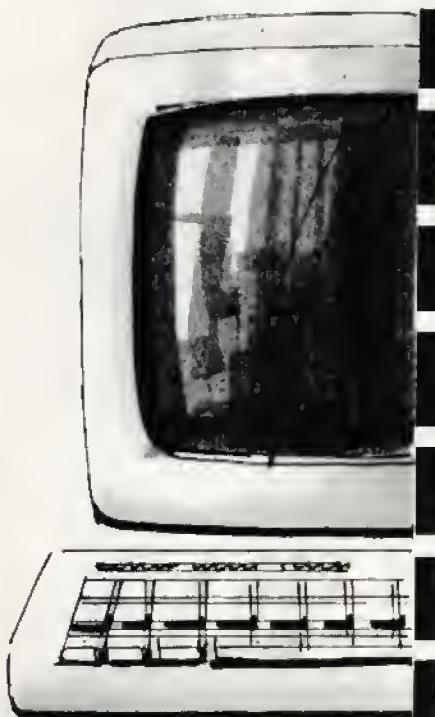
We had received many letters from people who'd ordered goods, had their cheques cashed, and never received anything. Our advice was not to send off any cheques to this operation until further notice.

Not only does the above warning still apply, but we'd like to draw your attention to the newly-appeared Computer & Software Independent (sic) Advisory Council of 577, Huddersfield Rd, Dewsbury. The phone number they give (0924 430964) answers as the Mira Group answerphone. They invite dealers to send cheques for

£35 to be registered with them to enjoy the benefits of their 'services'...

We leave you to draw your own conclusions!

When you buy a whole new Amstrad system, why use only half of its potential?



A Message from Amstrad's Chairman

Dear Amstrad Computer User,

You don't need me to remind you that you have selected the best computer in its price range. Numerous journalists from the specialist press have now contributed to the opinion that Amstrad computers represent the best all-round machine you can buy.

One of the many reasons why computer journalists have received our products so enthusiastically is undoubtedly our careful attention to providing information on the system and its software.

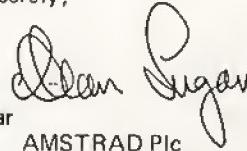
You can be a part of Amstrad's ongoing effort to inform and help users by taking advantage of this opportunity

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to join the User Club. Catering only for the Amstrad computer user, this specialist support club was initially formed by Amstrad solely for the purpose of assisting you with all your computer needs.

There are many immediate and direct benefits available, so don't delay before filling out the application form below and sending it back to Amsoft.

Yours sincerely,


Alan Sugar
Chairman AMSTRAD Plc

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My machine model is

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Games

Two of the best and most popular adventure games for the PCW are Hitch Hiker's Guide to the Galaxy and Leather Goddesses of Phobos. 'Goddesses' was written by Steve Meretzky, who co-wrote the computer game version of 'Hitch Hiker's' with Douglas Adams.

Since Infocom stopped distributing games for the PCW these two games have been more and more difficult to find from mail order places. However, one enterprising Scottish retailer has managed to get hold of several hundred copies of each and claims to be the only real source of the games for the PCW. They are available from ComSoft of Coldstream, Scotland (0890 2854) for the standard retail price of £24.95 each.



It's quicker by Grail

Following Mandarin Software's launch of the Arthurian blockbuster, Lancelot, last month, a nationwide treasure hunt, starting on the 17th October, is being staged to promote it. The quest involves discovering the secret hiding place of a £5000 replica of the legendary Holy Grail. Hand-crafted from sterling silver, the seven-inch copy of the famous goblet has been hidden in a secret location somewhere in the UK. Gilded inside with 22 carat gold and studded with amethysts, garnets and opals, the Grail will be mounted on an oak block bearing a silver plaque on which the name of the winner will be engraved.

Contestants have to battle through a two-stage contest based on clues lurking in the depths of the three-way adventure package. Four preliminary clues issued on a Holy Grail hotline at the beginning of October reveal possible locations

Is that a fax

Professional Computer Consultancy have just announced the launch of their new software for the PCW called FAX.

FAX expands on the functions of the typical personal organizer, millions of which are now flooding the market, by producing printouts to fit organizers of any size. You can print out from the program on ordinary A4 paper, or continuous stationary. All you need to do then is cut the sheets to the required size and punch holes in them to fit the binder you're using, whatever its make or size.

As you'd expect from any organizer package, entering names, addresses, telephone numbers and other details, together with a few notes, is perfectly feasible; but as well as printing weekly and/or monthly calendars, you can also make appointments in the diary section for individual dates and times, and repeat appointments for a given day of the week, or a given date in several months.

All entries have a comprehensive search facility with each word of each entry being indexed. Editing facilities are said to be extensive.

The PCW version of FAX, complete with manual and including VAT and postage is available at the introductory price of £24.95.

Contact Leslie Fahidy on 0293 776683 for further information.

of the goblet. The first 36 contestants to correctly guess these will receive a further set of clues leading to the real location.

Organizers of the treasure hunt, Mandarin Software and Level 9, say that anyone who carefully studies the game should be able to crack (at least) the first set of clues without any difficulty at all.

For further details, contact Mike Cowley on 0625 878888.

Backpackers take note

Isenstein's battery back pack is now available. This is a device which fits onto the expansion port



Have Amstrad blown it?



September saw the Personal Computer Show at Earls Court. Not much of interest for PCW owners - the only new product on show was Locomotive Software's LocoFile, described in this issue. Otherwise, all the software and products around had a very familiar feel to them.

Amstrad announced the PC 2000 series, aimed at the corporate market, ideal if you have four grand to spare and want a machine which looks like a PS/2. If on the other hand you don't know what a PS/2 is, you may not be interested.

Most reaction was caused however by their Sinclair PC 200. Prices range from £299 to £499 and the technical spec includes phrases like 'Intel 8086', '16-bit chip' and '8 MHz'. There's a choice of mono or 16 colour CGA monitors, or you can plug it straight into your TV set. There are parallel and serial ports, plus a 3½" 720k disc drive.

So what's it for? Bearing the Sinclair name Amstrad bought off Sir Clive two years ago, the new model is a cut-down PC ('a toy PC', as some pundits have scathingly described it) touted

as a games-cum-business machine. Games are an increasingly important feature of the PC market and the 200 is meant to appeal to the games player who wants the benefits of compatibility with the 'industry standard' software as they progress onto more business-oriented applications. However, many are pessimistic about its chances of success, saying it's too expensive for what it does when you can get, for example, an Atari 520ST plus colour monitor for a few pounds more. Amstrad have confounded plenty of critics before now, though, and the Christmas market will leave someone with egg on their trousers.

"I'LL BE GLAD TO GET HOME AND WATCH THE TELLY..."



at the back of the PCW and quietly saves all your data as you go along - the idea being that if you experience a power cut or just forget to save all the data before you turn the machine off, the battery-powered pack will save the data in memory for you to start up again where you left off when the power comes back on. Invaluable if

you live in an area where power cuts are frequent. It has an expansion port itself on the back for you to put your RS232 interface on.

The backpack costs £39.95 plus VAT and is available from Isenstein on 0244 312986.

Turning vertical

IT Marketing are currently launching industry-specific versions of their highly successful Cash Trader Plus and Credit Trader programs. The three vertical markets in question are Opticians (who became liable for VAT in September), Vets and Doctors.

Richard White, Managing Director of IT Marketing, says "Every type of business is

different, so it is important that manuals and screen displays talk in terms that mean something to individual business men. Doctors expect to use programs that refer to Patients, not Customers, and which are set up to deal with Family Practitioner Claims and Reimbursements."

These new packages have been perfected after months of collaboration with existing users

and a firm of Chartered Accountants.

Cash Trader Plus and Credit Trader are available at £199.95 and £299.95 respectively. Further versions are also said to be under preparation for Architects, Hotels, Pubs and Churches.

For further information, contact Richard White on 08045 6566.

Prices down

In response to Locomotive's marketing of their own add-on printer styles for LocoScript, Digita have brought down the price of their similar package 'SuperType 2' for use with LocoScript 2. Its price has almost halved to £14.95, and Digita point out that it also works with CP/M programs (like Protext).

They have also slashed the price of their Business Controller program from £99.95 to £69.95, and are talking about new software for the PCW. They aren't giving too much away yet, but one of the programs is a Payroll program said to be one of the most sophisticated on the market. Another is described only as 'revolutionary' (a revolving door simulator? A planetarium emulator?)

SuperType and Business Controller are available from Digita on 0395 45059.

Is their 'C' key broken?

Kador's KompuKalk is a more sophisticated than usual ruler which enables you to work out line and character pitches and appropriate scales for inches, millimetres and picas (or possibly pikas).

Not only can it be used to plan the layout on a blank piece of paper, but it can also be of help on printed material so that text can be copied back into the computer – pitches and all. For more information about either product, call Dorian Young at Kador on 0443 740281.



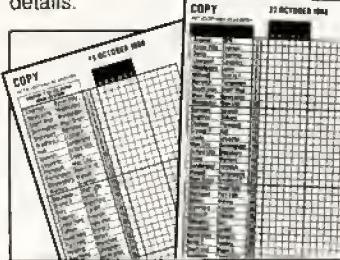
Pools Forecast

If you won a million pounds, would it change your life? Yes, we hope so too. Pools Predictor is the name of a new football pools prediction program for the PCW range from Corwen Computer Systems in Clwyd. It's been designed, say the authors, with ease of use in mind. There's no setting up to do whatsoever, as the program is supplied as up to date as it can be at the time of posting.

Central to the prediction process are two entirely separate but linkable systems. On the one hand there's the Form prediction formula which explores the current

form of the teams involved; on the other is a statistical process designed to uncover the draws. At £15.99, Corwen say that the program could very quickly pay for itself.

Phone 0490 2902 for further details.



Just for the record

For all would-be disc jockeys and proud owners of vast record collections, Cavalier Software have just announced the release of Record, a database for cataloguing album collections. It's the sort of program that will help anyone who enjoys having an impressive number of tracks always available at their fingertips but who can never find the one they're looking for.

The principle of the database is easy: you catalogue by user reference number the details of each album, single, video or cassette tape which you have in your library. You can then trace any track on any recording in the

library, using any one of the fields created: artist, main title, recording code number, date or track name.

The whole system is menu-driven, said to be very easy to use and also provides you with insert cards for cassettes as well as other lists and index cards which you can consult at times when it's inconvenient to get your PCW up and running – when you're on the road, for instance.

The PCW version of the package costs £29.95 (inclusive of everything) and can be obtained from Cavalier Software, PO Box 32, London SE15 2HS.

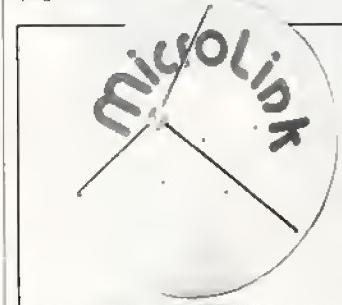
Phone 01 639 668 for further details.

Microlink expands

Hugely encouraged by the heavy increase in subscriptions due to the postal strike, MicroLink is making considerable improvements in the services it runs both for businesses and the general public.

The leading electronic mail system has just announced that, from October 4th, its subscribers will be able to enter into direct communication with fax users all over the world; there are 200,000 of them in the UK alone.

Three more useful modifications are currently in the pipeline: firstly, a high-speed number cruncher, which will convert units of measure, weight, capacity and temperature from Imperial into Metric (and vice versa) – all this correct to 16 decimal places, just in case you order your rounds correct to billionths of a pint; secondly, a currency exchange calculator which gives an instant conversion of a given sum of money into any of the world's major currencies (the 16 places will presumably come in handy for lira); and finally, a postal rates calculator, which tells you the cost of sending a letter 1st or 2nd class inland or anywhere else in the world by surface or air mail. All you do is enter the weight and class of the letter and the correct rate is instantly displayed. The only thing it doesn't calculate for you is your telephone bill for doing all this.



For further details of Microlink's facilities, phone Tony Leah on 0625 878888.

Happy Christmouse

AMS, the manufacturers of the successful AMX Mouse, are offering a prize to the 100,000th purchaser of their product. A forecast made on the basis of past sales has shown that the company will be shipping out the 100,000th mouse in something like a month's time. AMS will be monitoring its progress so that they know exactly which retailer has it. Its precise location will remain a mystery to



everyone except the retailers themselves so that when the time comes, 'a fanfare will sound' (obviously not played on the PCW

– not many fanfares can be played solely on B flat) and the prize will be presented. The prize itself will be a Fortnum and Mason Christmas hamper.

The AMX Mouse is compatible with the Amstrad PCW (among others) and comes bundled with Stop Press, popularly acknowledged to be one of the best desktop publishing packages on the home computing market.

The day Roger Jackson sent his first mailshot.



I was impressed by the fact that Star have now produced a great looking little budget printer with a 24 pin head.

I was impressed by its excellent quality - the 8 resident fonts available and its high density letter quality helped me produce a really professional mailshot.

I was impressed by the extremely swift draft elite speed of 170cps and LQ elite at 57cps and the standard 7k buffer.

I was impressed by the special push-tractor feature that allows the LC24-10 the lowest possible tear off and its ability to 'park' continuous paper and load single sheets automatically - so there's no need to remove the continuous.

I was impressed by the touch-button front control panel that makes using the printer an absolute dream.

But most of all, I was particularly impressed with myself.

Because my Star LC24-10 was so inexpensive and no other printer comes close for sheer quality and value-for-money.



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Craven House, 40 Uxbridge Road,
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A division of
Star Micronics Co., Ltd., Japan.

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Company _____

Address _____

Postcode _____ Telephone _____
Or just call Belinda on 01-840 1829.

L24A8+11

At last a database program that likes LocoScript! Rob Ainsley has a sneak preview of LocoFile...



Wait for it...

This is a preview rather than a review – we had a pre-production copy on which a couple of improvements might be made before it goes out to the public. The manual wasn't available either but it will no doubt be up to the usual Locomotive manual standard (ahem, well, the better ones anyway). LocoFile proper will be ready to roll off the disc copying production lines in mid-November, shortly after you read this.

THE LOCOFILE DATABASE

Why don't more commercial programs work from within LocoScript? Why does everything you buy have to be run from CP/M, rendering any transfer of information from your database, spreadsheet or graphics package awkward in the extreme?

LocoScript is very different from other programs, and specially designed for those unfamiliar with computing. Hence it has developed into an idiosyncratic system which hopeful writers wanting to create an add-on spreadsheet system or database would find very difficult to work with.

So, virtually all software for the PCW uses CP/M, whose whole purpose in life anyway is to provide a platform for third party programs to work from. Unfortunately LocoScript is such a nice cosy environment it discourages people from venturing into CP/Mland to run a database. Seeing the potential for a LocoScript database add-on, Locomotive Software, writers of all the 'Loco' products, have come up with LocoFile.

LOCOFILER

£24.95 • Locomotive Software (0306 740606)

• All PCWs

LocoFile is a database system that runs completely from within LocoScript: you never need to leave off editing a letter to look up an address, or run up CP/M to find a telephone number. When using it cards pop up on screen, 'in front' of the document being edited or the disc manager, and after use they disappear to leave the original screen as you left it.

It comes as a disc which converts your LocoScript 2 to the latest version, 2.20, which then incorporates LocoFile. If you have ever run LocoSpell or LocoMail (both of which work fine together with LocoFile) you'll know what to expect. Everything is the familiar LocoScript style of menus and prompts, and you have the regular menu-cum-command sequences, with any letter as usual selecting the appropriate option from the menu (eg. 'A' for 'Abandon edit') as well as the cursor keys.

Any datafile ending in .DAT in group 0 of a disc in any drive gets copied automatically to group 0 of the memory, so you datafile – names and addresses perhaps – is always available for use even when editing a document on another data disc.

Suppose you're in the middle of editing a document and want to look up an address, typically at the start of a letter. You press [f1] 'Actions' and find that in addition to the usual Document Setup, Insert Text and so on, there's a new option 'Run LocoFile'. You are taken to the disc manager screen and asked which database you want to use (subsequent runs of LocoFile will assume the same database as used before, with the option to select a different one.)

You move the cursor over the file you want and [ENTER]. Up pops a 'card' on screen from your database file, the last one you were looking at, with the cursor in the same position as it was. You can move the cursor around it with the usual cursor keys, and [ENTER] takes you to the next field, [RELAY] to the previous one. Each card is treated as a page

LOCOPHILE

in a document; [PAGE] moves you to the next record, [ALT][PAGE] to the previous one, [DOC] to the last record and so on. All this is according to the order of the currently selected index: eg. if you're indexing on surname and then initials, [PAGE] might take you from G. Marx to K. Marx, and [DOC] thence to W. Zzyniewski.

Beefy extract

Probably you want to use the name and address in the letter you were writing. You do this either by [CUT] and [PASTE] as normal, or through [F7] 'Extract'. This lets you set up a regular pattern of things to extract: for example you can set up your database so that [F7] always takes out the title, name, address and postcode, but not the telephone number or salary. 'Extract' copies the information specified into a normal block, and a couple of keypresses later you're straight back to the letter you were writing, pasting in the name and address you've looked up. Any blank fields come out as [RETURN]s. As there are ten blocks available you can get ten pieces of information from the database and paste all ten in at the appropriate points in the letter.

Indexing of your records (effectively the order they are kept in, though in fact programmers differentiate between 'sorting' and 'indexing') can be done on any item and any sub-item, the most obvious example being surname-initials. You can also do it on a numeric basis, so that £9 will come before £10 (it doesn't if you sort them character-by-characters rather than as numbers!) Locomotive, having a sound cross-cultural outlook, allows you to index in English, Scandinavian (in which á and ø come after z) or Cyrillic!

Often you need to find one specific

The database is the first program you buy after your word processing tools. It replaces a filing cabinet: it keeps on disc all those names and addresses of your club members, customer records, catalogues of your Andrew Lloyd Webber LPs, publishers who've rejected your novel etc. All easily edited, re-ordered, sorted into groups, printed out and so on.

The only problem for LocoScript users is that you have to leave LocoScript, start up CP/M, run your database program, write down the details you want, restart LocoScript... a bit of a fag if you're only looking one address up. Now, at last, there's a database that works completely from *within* LocoScript.

record – that customer called Marx maybe. [F5], 'Goto', lets you specify the indexed item to be found (ie. the surname if you're currently indexing on surname) and immediately displays that record, or a brief message and then the nearest it can find if there's no exact match. [F6] 'Search' is more general: say you can only remember that the customer you're looking for lives in Wetwang. You give 'Wetwang' as the search text and LocoFile goes through every item of every record looking for places where 'Wetwang' occurs. This tends to be slow by nature of its thoroughness: 'Goto' on the other hand is fast, taking under a second (and no time at all if the database file is on the memory or a hard disc).

For indecisive people, maybe

A great feature of LocoFile is its flexibility. However carefully you set up a database, you realise later on that you've forgotten to leave a slot for 'country' on the address, or that

the space you left for the telephone number isn't big enough for international numbers, or that the card layout is just too small. Most databases make you start up the whole thing again, maybe letting you use the old data if you're lucky; LocoFile, however, makes no such arbitrary restrictions. At any time you can add fields, change the shape of the card, make fields bigger, remove fields, reposition items, and so on. The only thing you can't do is make cards too small to fit anything on.

There's no limit on the size of a LocoFile database – you can make it as big as will fit on the disc, even a hard disc. Thus you might get a few hundred name-address-phone no. cards on a 173k disc and around a thousand on a 706k disc, though obviously it depends on how big each card is. On a 20 megabyte hard disc you could store

9512 note

LocoFile will work on either the 8256/8512 or the 9512, but separate versions will be produced for each model. You'll have to state which machine you own when buying, therefore, and it's probable that if you have two machines you'll have to buy two copies. Sorry!

One for all, none for 1

LocoFile does not work with LocoScript 1 and never will. If you're an 8256 or 8512 owner and still haven't bought version 2, whaddya waiting for? Much faster scrolling, ability to work with any printers in the world, jumping direct to any page in a document, easier layouts... all for just £25!!! It's available from Locomotive on 0306 740606.



M:SYSTEM /SENSIBLE.DOC Editing text.
Layout 1 Pi10 LS1 CR+0 LP6
Actions 12=Layout 13=Style 14=

Document setup
Edit identity
Insert text
Disc manager
Show phrases
Show blocks

You wanted that address of the pl
last year. Here it is:

for your last le
- I seem to spe
a hot keyboard
entities. Ben, as
ng women's cloth

Extracting address details for pasting into a document

M: SYSTEM /MAILSHOT.LIS LocoFile.
Index: Surname+Initials Item: None Printer idle, Using M:
1=Actions 12=Index 13=Item 14=Goto Col:21/60 Row:11/12
15=Find 16=Extract 17=Options
Record:4
Title Initials Surname
Ms... W J... Zwyczwieslcz...
Address 32a Scunthorpe Rd...
Town Grimsby...
County S Humberside...
Postcode SC15 9UJ...
Phone 0466 751002...
INQUIRE.EC 2k EX.JACKDAW
LETTER.1 2k PITCHES
LETTER.2 2k PITCHES.EC 2k
LSINFO 4k TEMPLATE. 2k
MAIL.IXT 4k
MAIL.IXT 4k
MASTER.EG 2k
MISTAKE.EC 2k

To block 0
Title MEMOS 0k
Initials LABELS 0k
Surname INVOICE 0k
Address MAILSHOT 0k
Town P 3 files
County o files
Postcode 000 2k
Phone OCT 2k

Extract specified
Select all
Select none

Running LocoFile from within a document

Er, what is a database?

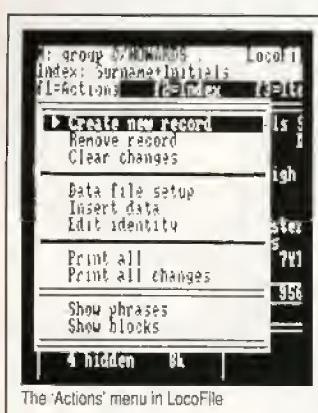
'Data' means no more or less than 'information' but is easier for computer journalists to type. A 'database' just means a load of information you maintain for reference purposes but only takes up eight letters.

The word 'database' is used with three meanings: the information store itself in general, the computer program which manipulates the information, and the information as stored on disc. Thus the current TV adverts for the Talking Pages where John Cleese tries to buy an antique diamond ring show an obliging operator using the database (program) to search through the British Telecom database (store of information, based on the information contained in the Yellow Pages) which is

stored on their computers as a database (series of files).

In effect a database replaces those card-indexes in your local library which have one card to a book. There are fixed slots for author, title, publisher and so on, and the cards are kept in order of author. In computer jargon each card would be called a 'record', each item on the card a 'field', and the whole collection of cards a 'file'.

A significant use of name-and-address databases is in mailshots. From your database you make a file of names and addresses, then tell LocoMail to write letters to all the names like 'Dear (name), We'll be round to (address) to see you if you don't pay up the (amount owing) you owe us'.



The 'Actions' menu in LocoFile

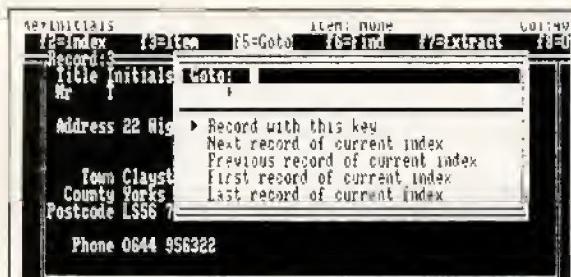
a problem with your disc, and the directory gets corrupted. It doesn't guarantee that a database on a disc left next to an X-ray machine will be recoverable, but should prove a useful emergency tool.

Editing a database file, or looking up a record or two, can be done from within a document. Setting up a new file is

something like twenty-five thousand people's details, or perhaps a concordance of every word in the Bible together with extensive details on when and where each is used.

The 'squash' function 'squeezes' files, rewriting them to make more efficient use of disc space. Possibly more important is the fact that it can also rescue database files if you get

database files if you get



done from the disc manager though. Cards can be made any size up to 99 lines deep by 80 columns wide. You scroll around large cards if they're too big to fit on the screen. Cards can be set up to 'expect' a certain printing style, just like LocoScript documents, so you can configure your database file to print out those names and addresses on your 'Filofax' paper type in Script font.

File your mails

LocoFile and LocoMail data files are two-way compatible – ie. you can use data files from either directly as data files in the other. Suppose, for example, you have an existing LocoMail data file consisting of names, addresses and telephone numbers; set up a LocoFile database consisting of the same items and LocoFile can read all the existing entries from the mail file into its database file. Saves a lot of re-typing! Alternatively, LocoMail can read LocoFile data files – so if you want to do a mail shot to all the customers in the database file you just write your letter as usual with bits in like Dear (+Mail)name(-Mail) where 'name' is an item (or field) in the database file, and the results will be as you expect.

You can therefore use LocoMail to produce 'reports' from your database – ie. if you just want a name-and-telephone number list from the name-address-and-telephone number database file, you use LocoMail. LocoFile has no calculation facilities built in, but you can again use LocoMail to do things like total figures for you or calculate VAT or prepare invoices.

9512 owners have LocoMail already – otherwise Locomotive (0306 740606) will sell it to you for £30.

Selectors out

LocoFile is a very simple database and doesn't have some of the functions you would get in a CP/M database of the same price – ability to select groups of records (just customers who owe you money for example), or anything more than crude printing facilities. You can only print out images of each card; for 'reports' (ie. printouts of just some items, such as name-phone no. only) you need to use LocoMail. You also have to use LocoMail to do selective printing, ie. only sending threatening letters to customers who owe money.

However, a neat feature of LocoFile is that you can tell it just to print out the items from the database which have been edited or added since the last printout. Handy for keeping long lists updated.

All in all LocoFile looks an excellent product – a simple but very flexible database that works from within LocoScript and is totally compatible with LocoMail. Of course, it won't replace specialist databases like Masterfile, Delta, dBase, AtLast and the rest, which have much more powerful data manipulation and printing functions; to make the most of LocoFile, you really need LocoMail.

However, on the simple name-address level that 90% of database work is involved with, it's difficult to think of any LocoScripters who wouldn't find LocoFile useful; unless you're dedicated to CP/M, have no outside interests to catalogue, and know nobody to write to, you'll find LocoFile a vital part of your word processing armoury.

Altering the structure of the database - eg. adding a field - is easy

LOCOFILe

PLUSSES

- ▲ Works completely from within LocoScript
- ▲ Usual helpful menu-and-prompts
- ▲ Size of files limited only by disc space
- ▲ Can change structure after setting up
- ▲ Fast, efficient and well-written
- ▲ LocoMail/LocoFile data interchangeable

MINUSES

- ▼ No report generator – must use LocoMail
- ▼ No calculation facility – must use LocoMail
- ▼ No facility to select only certain records – must use LocoMail

RANGE OF FEATURES	3/5	EASE OF USE	5/5
PERFORMANCE	5/5	DOCUMENTATION	N/A
8000 PLUS VALUE VERDICT 5/5			

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Guide your squad through a four year period encompassing the qualifying stages and Finals of both the European Championships and the World Cup itself. Use friendly matches to develop your strategy and learn to match the in-form players at your disposal. Success is there for the taking, but it will need to be earned.

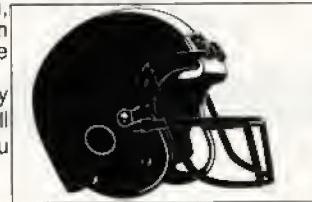


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VISA



It's always useful to maintain a ledger at home to keep track of your bank account. Every payment made, either by cheque or more recently by Connect card, is scrupulously entered in the accounts book (in theory at least). Trouble is, entering all of your direct debits and standing orders every month can be a real chore if there are a lot of them.

Of course you can buy accounts packages incorporating the sort of simple, foolproof routines that can automate all this. But often the cost is much greater than the need. One alternative is to write a program in BASIC – but for the silent majority of LocoScripters, a Loco-based system is much more practical. All 9512 owners, and 8000 owners who've bought LocoMail, can use the mail merger to run their own accounts handling routines.

For the maximum power in your home-grown accounts program, you need to utilise both 'Fill' and 'Merge' modes in LocoMail. Using the Fill option, you update the accounts sheet every month, say, with entries that are either a one-off or likely to change from month to month – like winning the pools, inheriting a vast amount of money from Great Aunt Maud, paying a speeding fine and so on. Regular monthly transactions, on the other hand – like salary, standing orders, direct debits – can be grouped together in a datafile and automatically merged into the standard document later on.

The routine is very thorough and will show the date of a particular transaction, the method of payment involved, the amount of credit or debit, and a running balance. LocoMail calculates all the arithmetic automatically – so long as you feed it the proper instructions and codes; similarly, as long as your entries are correct, the final balance will be too. Basically, you need to prepare four files: a Template which is the foundation of the master document, a Fill document, a Merge document, and a Data File. You can see in the first screen shot what a combination of Fill and Merge looks like, with an existing balance of £250.00. The first five entries were made in Fill mode, the other regular deductions were drawn from the Data File in Merge mode.

First things first

First of all, you need to create a new file as the format of the main records. Call it TEMPLATE.STD. As long as all the files are created in the same group the layout you set up will be duplicated in all of them. Via Document Set-up, devise your header layout, fixing the tabs you're going to need. [EXIT]. Return to Edit, Change Layout and set up the same tabs for the main part of the document.

```
(+Mail)balance=?#; Enter balance to date - [RETURN]
[RETURN]
loop=" (+Mail) [RETURN]
!date=?:date (-Mail) [TAB] (+Mail) [RETURN]
transaction (-Mail) [TAB] (+Mail) [RETURN]
method (-Mail) [TAB] (+Mail) [RETURN]
credit (-Mail) [TAB] (+Mail) [RETURN]
debit (-Mail) [TAB] (+Mail) [RETURN]
balance=[balance+[credit-debit]] [2]:balance (RETURN)
$+(-Mail)" [RETURN]
$loop&transaction(-Mail)
```

CREDIT WHERE CREDIT'S DUE

Malcolm Ruthven shows how LocoMail can run your home accounts

Creating fill document: FILE ACCOUNTS.F.

(+Mail)balance=?#; Enter balance to date: [RETURN]

```
accfill=" (+Mail)
[RETURN]
? date (-Mail) [TAB] (+Mail) [RETURN]
? transaction (-Mail) [TAB] (+Mail) [RETURN]
? method (-Mail) [TAB] (+Mail) [RETURN]
credit=?#;credit=[credit] [2] [RETURN]
#credit="0":<(-Mail)00.00(+Mail)><:credit:>(-Mail) [TAB] (+Mail)
[RETURN]
debit=?#;debit=[debit] [2] [RETURN]
#debit="0":<(-Mail)00.00(+Mail)><:debit:>(-Mail) [TAB] (+Mail)
[RETURN]

balance=[balance+[credit-debit]] [2] [RETURN]
balance [RETURN]
reply=?; For another entry press ENTER, or type N to finish [RETURN]
#reply="N":<:finish=0:><:finish=1:> [RETURN]
(-Mail)" [RETURN]
%accfill&finish (-Mail) [RETURN]
(+Mail)memo; Press ENTER then choose SAVE RESULT option [RETURN]
; and save file on group in Drive M. (-Mail)
```

1 group //ACCOUNTS.F. Editing text.		Printer file, Using Page 1 line 1/55		
f1=Actions	f2=Layout	f3=Style	f4=Size	f5=Page f7=Select f8=Options EXIT
31.01.88	salary	giro	900.00	00.00 1150.00
03.01.88	credit card	cheq	00.00	30.00 1120.00
06.01.88	club subscription	so	00.00	15.00 1105.00
08.01.88	Christmas presents	-	22.00	00.00 1127.00
07.01.88	wine merchants account	cheq	00.00	37.30 1089.70
10.01.88	Building Society (mortgage)	DD	00.00	250.00 839.97
10.01.88	Insurance	DD	00.00	25.00 814.97
10.01.88	Electricity	DD	00.00	14.00 800.97
10.01.88	Gas	DD	00.00	29.50 771.47
10.01.88	Rates	DD	00.00	31.00 740.47
10.01.88	Telephone	DD	00.00	13.00 727.47
10.01.88	Water rate	DD	00.00	6.35 721.12

In completed form: a combination of fill and merge

[EXIT] and Finish Edit.

Then create the file, ACCOUNTS.F, for filling and ACCOUNTS.M, for merging:

Data import

Finally, you need to create a data file, ACCOUNTS.DTA, for your regular, rarely-altered debits, and receipts (if you're lucky enough to have any) for merging with ACCOUNTS.M. Change the layout of the document so that there is only one simple tab in the middle of the page and just two decimal tabs further to the right. Type in the following record pattern.

```
: group //ACCOUNTS.DTA Editing text.
layout 1 Pi12 LSI CR+0 LP6
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT
transaction method; credit-> debit(Unit)
Building Society (mortgage);+
Insurance;+
Electricity;+
Gas;+
Rates;+
Telephone;+
Water rate;+
DD-> 00.00; 250.00(Unit)
DD-> 00.00; 25.00(Unit)
DD-> 00.00; 14.00(Unit)
DD-> 00.00; 23.50(Unit)
DD-> 00.00; 31.00(Unit)
DD-> 00.00; 13.00(Unit)
DD-> 00.00; 6.35(Unit)
```

Accounts DTA: Datafile ready for merging

```
: group //ACCOUNTS.F Editing text.
layout 1 Pi12 LSI CR+0 LP6
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT
balance? : Enter balance to date:
accfill=
date
transaction
method
credit=? ; credit[i]=(credit[i])
credit="0";(0.00)(credit)
debit=? ; debit[i]=(debit[i])
debit="0";(0.00)(debit)
balance=[balance+(credit-debit)] ; balance=0 ; (0.00)<:balance:>
reply? ; For another entry press [ENTER], or type N to finish
reply? N? ;(finish=0);(finish=1)
%accfill@finish
```

Fill document: Accounts F

```
: group //ACCOUNTS.M Editing text.
layout 1 Pi12 LSI CR+0 LP6
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT
balance? : Enter balance to date -
loop=
date
transaction
method
credit
debit
balance=[balance+(credit-debit)] ; balance
%loop@transaction
```

Ready for merging with datafile

You should be able to get it all on one line, of course, without the bracketed instructions. Set out your data in separate pages below, and don't forget the semi-colons and the record terminator [ALT][RETURN] every time.

transaction; [TAB] method; [DECIMAL TAB] credit;
[DECIMAL TAB]
debit [ALT.RETURN]

Would you credit it

To set up your first accounts sheet, it's probably best to begin with the Fill unit – then there's a good chance of topping up the balance with a credit or two! Set the cursor on ACCOUNTS.F, press F, [ENTER], and fill the table with details as prompted. When you've finished, make a note of the final balance. From the completion menu, select Save result, and save it to a nearby group in Drive M – that means you don't have to worry about erasing it later, and you can even accept the offered file name DOCUMENT.000 if you like.

Next, merge the ACCOUNTS.M file with the ACCOUNTS.DTA file. Set the cursor on ACCOUNTS.M and press M. When prompted for the file for merging, move the cursor to file ACCOUNTS.DTA and press [ENTER]. The first thing you'll be asked for is the current balance (which you're carrying forward from your fill – £1089.97), and then for the date. Once you've typed that in, all the other information is entered automatically. Save result of that file to a group in Drive M, too. Unless you rename it, it will be called DOCUMENT.001.

Finally, creating what is to be your main document involves merging (in the non-LocoMail sense of the word) the Fill document and the Merge document together. It's quite a good idea to keep a separate file for every month, so you could name it, for example 8808.ACC. Having opened it, go to Insert Text (from f1, Actions), and insert first ACCOUNTS.F (saved in Drive M probably as DOCUMENT.000), and then, in exactly the same way, ACCOUNTS.M (DOCUMENT.001). Your simple accounts file is now up-to-date and you can [EXIT] and Finish Edit or Save and Print as you like.

The information can be kept either on disc or as a print-out for storing in a loose-leaf binder. And any time you need to update it just work with the Fill document, as before. ■

● LocoMail is available from Locomotive Software (0306 740606) for £29.95. Different versions are available for LocoScript 1 and LocoScript 2. 9512 purchasers, on the other hand, get LocoMail and LocoSpell free with their LocoScript 2 disc.

Brief reminders

In Merge mode, you'll get an error message if you attempt to use a variable name (like, in this case, Gas, Rates, Telephone etc) without assigning any information to it. This doesn't mean that no information is unacceptable (it is possible for example to have a field in a datafile that registers nothing), but that variable names that are not defined will be rejected.

In Fill, of course, it's perfectly acceptable to use an undefined name: if it's used in an expression, or elsewhere, you'll be prompted to supply the relevant information from the keyboard (like Date ?, Transaction ?, etc). This information is then stored with the name. New information will be assigned to that name at the start of the next pass.

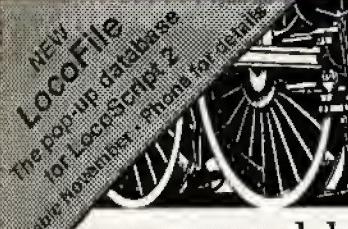
If you get an 'Invalid record pattern' message,

followed by a prompt to cancel the operation when trying to merge a master document with a datafile, it means that the datafile you've selected doesn't have an acceptable record pattern or that the record pattern in question has got two terminators ('End Page Here' symbols). Edit the datafile and try the merge again.

Information being inserted into the wrong blanks, meanwhile, would seem to indicate that the datafile has not been set up properly. In particular, it might be worth checking the use of field separators in the record pattern against their use in the data records themselves; errors are pretty certain to occur if the character that you've chosen as a field separator appears in the midst of information it ought only to be used to mark the end of. Use carefully, for example,

the hash sign if it's being used to incorporate what's ultimately more than one line as a single field in the record pattern (as we've seen with addresses, for example).

If, after all the LocoMail instructions have been processed, the usual Exit menu is not displayed on the screen, and instead you're left with the cursor on the document long after the last instruction was followed, then the chances are you've pressed the ENTER key more times than was strictly necessary. Because some of the information may well have been inserted into the wrong slots because of this, what the program has done is very thoughtfully send you back to the editing screen so that you can correct any mistakes and then carry on as normal.



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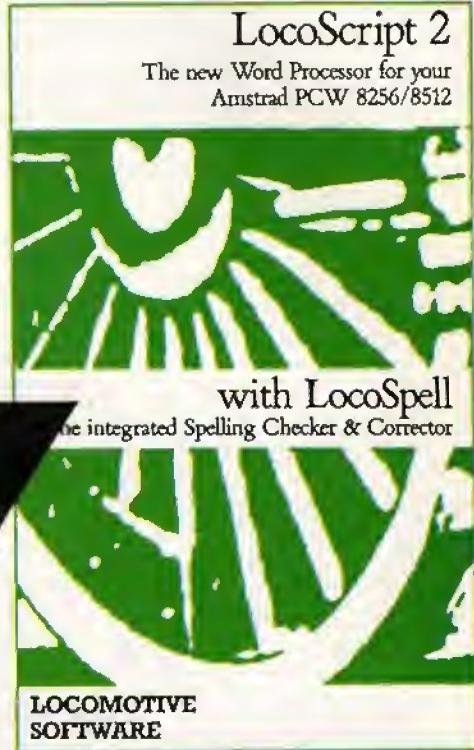
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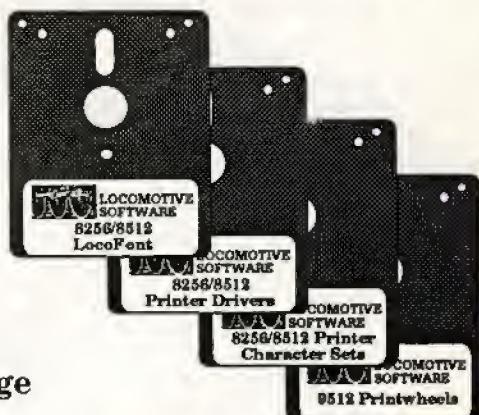
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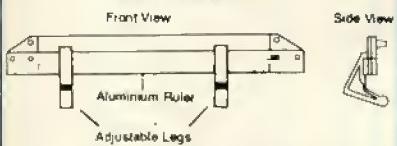


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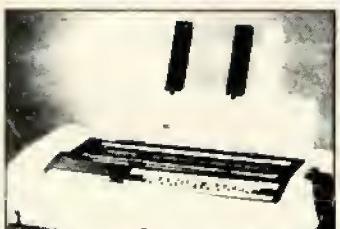
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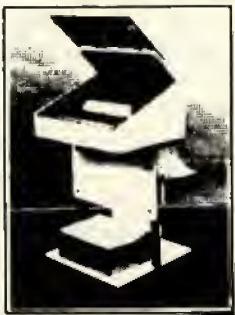
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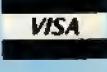
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Ian Kernaghan tells how the PCW taught him a lesson in automation

Computing only started for me, despite my physics degree, six years ago when I went on a course for using computers in science teaching. As Head of Science at Forest Hill School in London, I realised that we had no expertise, so I duly signed up, little knowing what the future was to hold!

The course introduced me to programming in BASIC, which in retrospect was the wrong approach, as it soon became clear that to produce effective teaching programs you need vast amounts of time, and today's teachers have precious little of that. Having laboriously plotted my sine curve, I could see that this machine might have other uses, so on returning to school I pestered the Head and eventually got the department its own black metal monster.

I then found out that it was impossible to do computer development in school during the day, and discovered Kernaghan's Law of Educational Computing - "For every thousand pounds of hardware, you need to spend another thousand on somebody's time".

Look before you leap

I first learnt to use a database program called LEEP (you thought *AtLast* and *Cracker* were silly names?) to organise groups for end of term activities. This program was very unforgiving as you could not search for records in editing, or go back if you made a mistake. When it eventually was put to its final task of printing out, it took two and a half hours to do the job. Because nobody had ever tried to do such a large job before, we all thought the machine had broken or jammed, and switched it off several times before we decided to see if it ever would stop!

Next I bought WordStar. What an experience! I can honestly claim to having learnt Wordstar from the official manual, which is no doubt why I was of the few who thought the first LocoScript manual was wonderful.

By September 1985 I was furiously saving the £2000

At last the problems

AtLast is weak on one area only, and it freely admits it, and that is mathematical calculations. It only totals on separate fields, and nothing else. This means that it would give me the total of marks all pupils had in their Electricity test or Microbes test which is not very useful. It cannot work out the average (this has to be done by taking the total and doing it by hand). It will not add each pupil's test marks or average them, and subtraction, multiplication and division are non-existent.

needed to buy a system that I could have at home when I read an article in *The Guardian* describing this wonderful new system, but hadn't I read it all before? Remember Oric, Dragon, Memotech? A colleague went to a computer show and returned with the brochure and a sample page of print. No, this could not be true, not at that price! By now other reviews were appearing, so on their recommendation I placed an advance order, and can duly claim to be one of the first owners in the country, collecting it the day it first arrived in Dixon's in Croydon.

Now at that price I knew that it could not be as good as the system that I had grown up with. Two and a half years later I still cannot quite believe the value for money that it represented then, and still does today. The opening days however were not easy. As a Wordstar expert I had expected to transfer in a trice, but LocoScript's approach was rather different.

Pip does a strip

I had bought the 8256 expecting not to be able to transfer my Wordstar and Microscan files, but this proved to be no problem. Microscan directly produces ASCII files, and I discovered that if you copy Wordstar files with PIP using the [Z] option, then it strips out all the Wordstar codes leaving pure ASCII files. The 5½" discs were then sent off to Grey Matter in Devon, who transferred them on to 3" disks by return of post. At £10 a disk this is a very good service.

For me the main thing that word processing can do is not merely to correct mistakes or prevent professional copy, but produce several different types of documents from the one original. When I start to write a new unit of work, I sit down and write a course guide that has teacher and technician notes on one page, the pupil's instructions on another, and the questions last. The overall format is set up in the template, so that question numbers for instance, need never be typed more than once, as the template can then be copied and edited for each unit.

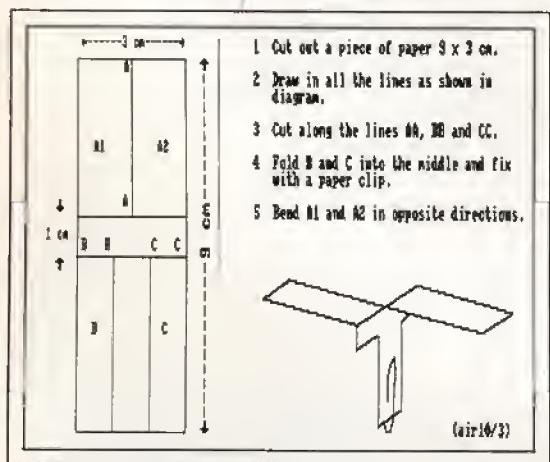
This guide forms the definitive text for teachers and technicians, and they are encouraged to write their own comments and suggestions into it for typing up by me later. This guide then becomes a way of communicating amongst all the teachers, and a historical document, listing all the good and bad things we have done.

I then cut and paste the instructions to get the pupils' sheets for use in class. The questions are cut and pasted into other sheets that are copied and given to each boy. This means that all teachers set the same homework leading to greater uniformity, and time is not wasted in the pupils having to copy the questions down.

I supplement the pupils' sheets with artwork produced by the Electric Studio Art software and mouse. I find this a very good package to use, and more than adequate for my needs which are usually simple apparatus diagrams, or drawings of

graphs. A diagram used in a worksheet can then be easily modified for use in the test. My one criticism is that you cannot quickly call up an erasing block, but have to go through several pulldown menus every time, which is tedious.

For administration LocoScript is perfect for producing standard letters for internal memos, missing homework, poor behaviour, etc. The beauty of being able to tailor such letters to meet changing needs is a tremendous aid to good administration.



Name & TG	
HW 1 — VELOCITY AND SF	
Lower	<i>Changing speed</i>
Middle	<i>Speed and velocity, acceleration</i>
<i>Read and learn chapter 35, "Speed", "V" "Ticker timer: tape chart".</i>	
INSTRUCTIONS — DO NOT COPY	
<ol style="list-style-type: none"> The correct use of units at all times is very important. When setting up the ticker timer, make sure carbon disc is shiny side down, and is free. The dots must be clear. 	

Crackered

The Cracker 2 spreadsheet helps with finance. We use a formula for allocating the money by multiplying the number of pupils in a subject, by the number of periods they have, by a weighting factor that varies from 1 for Junior Science to 2 for A level work. This is then totalled across all the years and the percentage of the capitation is then given to each subject. Graphs can then be drawn, and the standard "What if" calculations done. It is a very powerful package, and the only drawback is that it is a little slow. The new version claims to be 50% faster.

I also discovered a bug in early versions which meant that despite its sophistication it could not draw a pie chart for the numbers 1, 2 and 3!

For set lists I had relied heavily on Microscan, so I urgently needed a database for the Amstrad. I wrote to all the companies who had one on offer then, outlining the facilities that I wanted. It was with some surprise that I found that none were exactly what I wanted. I tried Sagebase, but it is really only for a double drive machine because of the number of times that you keep having to change discs. Next was Saxon Computing's Microfile, but it would only sort on one field, not two or three. This means that the database has to take a list of names and sort them into classes first of all, then alphabetically within each class of instance.

Success at last

I was resigned to waiting until something else came along when I spotted AtLast. It certainly seemed to do the job so in desperation I bought it.

There then began the sort of love-hate relationship that I had had with Wordstar. The first manual was really heavy going, not helped by the dark blue print on light blue paper. Whilst it was never incorrect, it was certainly brief, and in consequence I had to pore over a single sentence for hours to work out what it meant. It took me a long time, including talking to the author at an Amstrad show, before the significance of the definition of constant field as "A constant whose value will be selected from the elements of an associated field in the SYS record. Fields of this type are not permitted in the SYS record" finally emerged.

One word of warning - you must be fluent with CP/M, to get the most out of Atlast, and you need expanded 512k memory. The program is in two halves, one will fit into an unexpanded 8256 memory. (I have expanded two 8256's using Silicon City's kit which is excellent in instruction detail and speed of delivery).

On the other hand once you have built the database, AtLast provides a very user-friendly front end. I discovered this by using its simple mail merging facilities to enable my department staff to write reports.

These are designed so that the teacher is faced with a series of uncompleted sentences such as "His ability is" or "His homework is". They then have a series of words or phrases such as "excellent", "good", "average", "poor", "always done" or "not always done" to pick from. Pressing the first letter, then return, displays the whole word or phrase. The words or phrases to pick from are the constants and this is one of the most powerful features of Atlast.

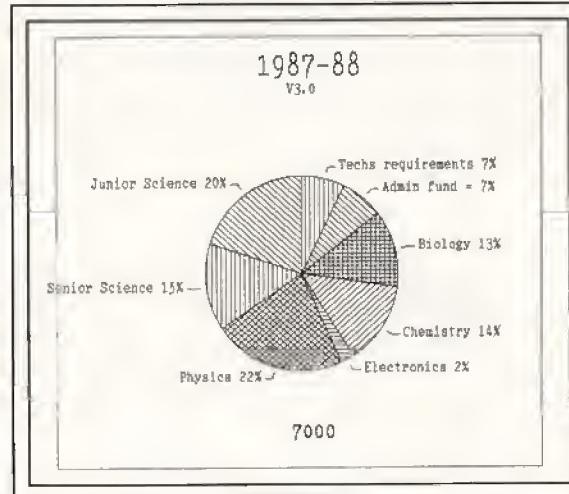
It is also fast, giving near instant access to a record in several hundred. I was also surprised at how quickly non-computer people quickly handled the program.

I then discovered the joys of exporting data out of the database in ASCII files, so that I could modify it by adding new fields, then putting the data back in. All versions of the manual carry the message "Although this method may seem clumsy and tedious, it is very powerful". A masterpiece of understatement! You definitely need CP/M here.

Another excellent feature is the ability to print out your data in unlimited (I think) formats, and this is why I use it rather than Campbell's Masterfile 8000. With reports I design

one screen display with help messages for the teacher, then I print this out as a proper report for the parents. These are often used as the basis of parents evening, so I produce summarised reports for the teachers to work from, just in case they say something different from what they wrote! I can also produce lists of boys who are getting adverse reports.

So what of the future? LocoChar seems to show promise for drawing electrical circuit diagrams directly into worksheets. Atlast is being lined up for a full lesson by lesson analysis of our Junior science curriculum covering everything from apparatus to aims and objectives. Stock control might be done. Now who would have thought that six years ago? ■



SCIENCE report for ADAMS, Ricky Lee	
Teacher's name - WILLIAMS	Feb
His ability is average and his effort is average.	
His practical work is average and his written work is average.	
His behaviour is average. His homework is not always good.	
He has been absent for 3 lesson(s).	

SCIENCE report for ADU-BAAH, Scott	
Teacher's name - HARDING	Feb
His ability is poor and his effort is average.	
His practical work is average and his written work is poor.	
His behaviour is good. His homework is not always good.	
He has been absent for 2 lesson(s).	

Worth it at last?

For those who have the old AtLast and are wondering if they should spend £20 upgrading to AtLast Plus, I would say yes, but only just. I don't feel that the improvements are such good value for money as the £20 spent changing from Loco 1 to Loco 2 is.

Grand Union

As well as being a teacher, I am also branch secretary for the Lewisham NASUWT, which is one of the teacher unions. LocoScript enables me to produce professional letterheadings and documents.

Minutes and agendas are easily written once a template is made, so a lot of the drudgery that goes with this sort of job is reduced. I had not felt the need for LocoMail, until a certain Mr Baker

introduced legislation that we are not entirely in agreement with. It's on order!

AtLast keeps my several hundred members in order. A database has the names, home and school addresses and telephone numbers of school representatives, plus one of the officers who contacts them. The excellent form writing with AtLast allows telephone contact lists, mailing labels and checklists to be produced.

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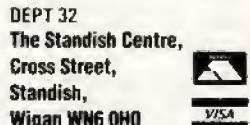
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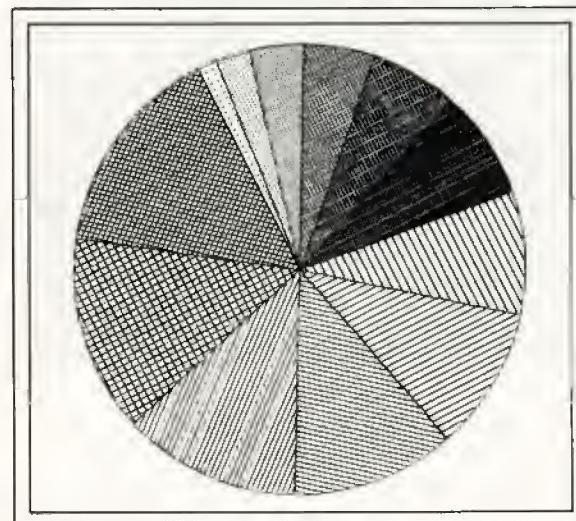
EVER DECREASING CIRCLES

Charles Pulteney concludes his look at graphics in BASIC with GSX

You'll need to have typed in the listing UTILITY.GSX given last month. This does nothing by itself but sets up graphics functions you can use in other programs. Enter your special GBASIC as usual, load UTILITY.GSX and type in Listing 1. This is a routine that draws circles, pie charts and pie slices. The mathematicians amongst you will realize that lines 6060-6120 plot a series of points five degrees apart around the arc of a circle. Straight lines drawn between these points provide a reasonable approximation to the curve of a circle (the lines are actually drawn by the polygon GOSUB). This is now your circle-drawing utility.

Listing 2 is all you need to draw any circle or pie chart. Furthermore, pie chart data will be automatically scaled with the size of each segment proportional to the sum of the data. In lines 10030 and 10080, the first two figures are the x and y co-ordinates (x_1, y_1) for the centre of the circle or pie chart. The third figure is the length of the radius, and the next is the number of segments. The data for each segment then follows. Each segment is drawn in clockwise order. Line 10060 is a clever way of automatically changing the fill pattern whenever a new segment is drawn (up to 12). Note that the slash is the integer division operator (press EXTRA and $\frac{1}{2}$ twice). It is up to you to design your own segment labels! Unfortunately, you will find that the circle is not quite perfect. With large circles you will find that the radius at the top and bottom is slightly shorter than it ought to be. You will need to bear this in mind when drawing your labels.

Last month's introduction to GSX, the graphics drawing package supplied free with your PCW, left us all on the edge of our seats with bated breath and eyes agog. Now at last you can see some interesting and mindbogglingly useful applications: pie charts, bar graphs, circles...



Further reading

More details on GSX can be found in 'The Amstrad CP/M Plus' by Clarke and Powys-Libbe, but it's a real hacker's book, and won't enlighten you unless you're familiar with assembler. The same can be said for Amstrad's 'CP/M Plus Handbook', by Digital Research, published by Heinemann at £14.95.

```

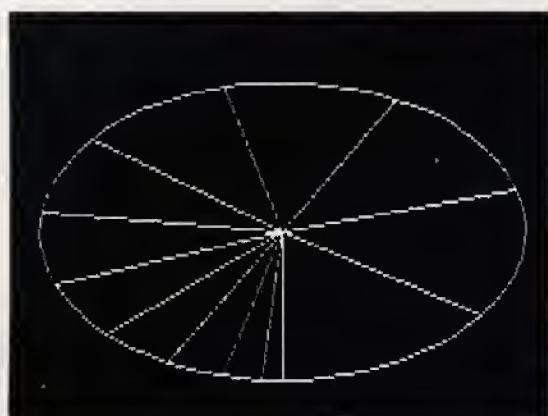
6000 'DRAW CIRCLE/PIE CHART/PIE SLICE (LISTING 1 (PART 2))
6010 'SET beg AND fin TO START AND FINISH ANGLES OF SEGMENT
6020 a=1:count=3:cx=x1*x.scale#:cy=y1*y.scale#
6030 pi=3.141592:DEF FN rad(d)=d/180*pi
6040 rax=(radius*x.scale#+radius*y.scale#)/2:rax=rax-(rax*1/10)
6050 IF no.segs%>1 THEN pts.in%(1)=cx:pts.in%(2)=cy ELSE count=1:a=0
6060 FOR i=beg TO beg+fin STEP 5
6070 pts.in%(count)=ptr*rax*SIN(FN rad(i))+cx
6080 pts.in%(count+1)=rax*COS(FN rad(i))+cy
6090 count=count+2:a=a+1:NEXT i:np%=a+1
6100 IF slice% THEN pts.in%(count)=cx:pts.in%(count+1)=cy:GOSUB 1000:RETURN
6110 pts.in%(count)=ptr*rax*SIN(FN rad(beg+fin))+cx
6120 pts.in%(count+1)=rax*COS(FN rad(beg+fin))+cy:GOSUB 1000:RETURN

```

```

10000 'CIRCLE.GSX (LISTING 2 (PART 2))
10010 'PROCESS CIRCLE/PIE CHART DATA
10020 fin=0:beg=0:tot=0:RESTORE 10080
10030 READ x1,y1, radius, no.segs%:DIM div(no.segs%)
10040 FOR i%=1 TO no.segs%:READ div(i%):tot=tot+div(i%):NEXT i%
10050 FOR j%=1 TO no.segs%:fin=ROUND(360*div(j%)/tot)
10060 fill%=1:sty%=(j%-1)\6+2:idx%=(j%-1) MOD 6+1
10070 GOSUB 6000:beg=beg+fin:NEXT j%:RETURN:' TO LINE 210
10080 DATA 40,40,20,12,1,2,3,4,5,6,7,8,9,10,11,12

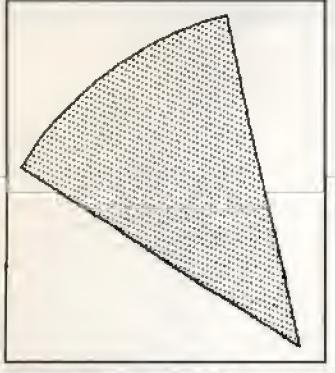
```



To draw a circle, the number of segments (no.segs%) should be set to 1 and the one item of data to 360. Do not forget to set fill% in line 10060 to 0 if you want a hollow circle. Save the program in the normal way and run it by merging with UTILITY.GSX and Listing 1.

Listing 3 draws a pie slice. The first two figures in line 10060 are the x and y co-ordinates for the point from which the slice is drawn. The third figure is the length of the radius, and the next two are the beginning and finishing points of the slice in degrees (ranging from 0 to 360). Use fill% in line 10050 to set the fill. Save the program in the normal way and run it by merging with UTILITY.GSX.

Listing 4 draws a bar chart with a main title and labelled x and y axes. It may seem complicated, but this is because the program is designed to scale all data automatically, as well as to label axes, regardless of the size of the graph and the character height of the text selected. You will probably



```

10000 'SLICE.GSX (LISTING 3 PART (2))
10010 'PROCESS PIE SLICE DATA
10020 slice%=-1:fin=0:beg=0:RESTORE 10060
10030 READ x1,y1, radius, beg, fin
10040 fin=fin-beg:fill%=1:sty%=2:idx%=2
10050 GOSUB 6000:RETURN:' TO LINE 210
10060 DATA 40,40,20,10,55

```

```

10000 'BARCHART.GSX (LISTING 4 (PART 2))
10010 'SET UP VARIABLES AND DRAW WINDOW
10020 RESTORE 10380:gap1=1:gap2=2:gap3=3
10030 READ x1,y1,x2,y2,no.cols,max.col,xhgt%,yhgt%,title%,title$,y.lab1$
10040 GOSUB 2000:col.hgt=((y2-y1)*0.75)/max.col:col.wth=(x2-x1)/no.cols
10050 DIM bar(no.cols):xx1=x1:yy1=y1:xx2=x2:yy2=y2
10060 'DRAW y AXIS SCALE AND MARKERS
10070 hgt%=yhgt%:GOSUB 8100:GOSUB 8800:nxt.stp=max.col/5:mark =nxt.stp
10080 FOR i%=1 TO 6:mes$=STR$(mark ):mess$=RIGHT$(mess$, (LEN(mess$)-1))
10090 x1=xx1-(gap2+((LEN(mess$))*(ch.wth/x.scale#)))

```

```

10100 IF i%=6 THEN left.side=x1
10110 y1=y1+(nxt.stp*col.hgt):hgt%=yhgt%:GOSUB 3000
10120 x1=xx1-gap1:y1=y1:x2=x2:y2=y1:GOSUB 4000:mark =mark +nxt.stp:NEXT
10140 'DRAW y AXIS LABEL
10150 x1=left.side-gap2:hgt%=yhgt%:dir%=90:GOSUB 8100:GOSUB 8800
10155 l1xout.box=x1-(gap2+ch.hgt/y.scale#)
10160 y1=yy2-yy1:y1=y1-((LEN(y.lab1$)*ych.wth)/x.scale#):y1=y1/2:y1=y1+yy1
10170 mess$=y.lab1$:dir%=90:hgt%=yhgt%:GOSUB 3000
10180 'DRAW MAIN TITLE
10190 hgt%=title%:GOSUB 8100:GOSUB 8800

```

```

10200 x1=l1xout.box:x1=x1+((xx2+gap2)-(x1+((LEN(title$)*ch.wth)/x.scale#)))/2
10210 y1=yy2+gap3:mess$=title$:GOSUB 3000:uryout.box=y1+gap2+(ch.hgt/y.scale#)
10220 'DRAW x AXIS LABELS
10230 hgt%=xhgt%:GOSUB 8100:GOSUB 8800:x1=xx1:y1=yy1-(gap1+(ch.hgt/y.scale#))
10240 l1yout.box=y1-gap2:RESTORE 10400
10250 FOR i=1 TO no.cols:READ mess$
10260 x1=x1+(col.wth-(LEN(mess$)*ch.wth/x.scale#))/2
10270 hgt%=xhgt%:y1=y1:GOSUB 3000:x1=xx1+(col.wth*i):NEXT
10290 'DRAW (AND FILL) BOXES
10300 x1=xx1:y1=yy1:RESTORE 10390

```

find it easier to follow this description of the key elements of the program if you type Listing 4 in now and run it.

The core of the drawing is the window in which the bars are drawn. If you look at lines 10030 and 10380 you will see how the dimensions of the windows are set. The first four items in line 10380 provide the lower left and upper right co-ordinates of the window. The next two items in line 10380 specify the number of columns and the value of the largest column. The largest column will always extend to 75% of the height of the window (change 0.75 in line 10040, if you do not like this), and the other columns will automatically be scaled accordingly (by col.hgt). Lines 10070-10120 draw a scale on the y axis that is related to the value of the largest column (nxt.stp). Six proportional gradations are always drawn, the fifth of which is equal to the value of the largest column.

The next three items in line 10380 provide the values of the character heights for the x axis text, the y axis text and the main title. The last two items are the main title, and the title of the y axis. Much of the complexity of the program is due to the fact that the titles and scales are drawn around the window. It is therefore necessary to keep track of the space that is used to draw text. This is not difficult to do because you can ask GSX to tell you how much space (width or height) is taken up by the characters of a particular character height setting. For example, in line 10190 hgt% is set to the height of the main title text and a call is made to GOSUB 8800. This call provides the value of the width of each character (ch.wth), which when divided by x.scale# is used in line 10200 to calculate the space taken up by the title. This information is then used to print the title in the centre of the large box at a position of gap3 above the top of the window. Similarly, ych.wth/x.scale# is used to centre the title of the y axis along the left side of the window (line 10160). The same technique is used to centre each x axis label on its bar (line 10260).

If you now change the first nine values of line 10380 to DATA 15, 15, 35, 25, 12, 8000, 1, 1, 1 you will find that a perfectly scaled mini-graph has been produced from the same data. In future, the effort required to produce this type of graph is minimal. You just change the relevant DATA lines!

Listing 5 introduces one other technique. Lines 8400-8710 of UTILITY.GSX alter the colour of fill, text, lines, and line markers. Setting colour% to 0 has the effect of writing in "white" and, for example, enables you to place "white" text on a black background, or to create a "white" shape within a filled shape. There are a number of points to note. First, when using the fill colour option, you have to specify the same fill setting that was used in the first place (line 10020). Second, the line effect is difficult to see as the line is so narrow. Third, text, line markers and lines written when colour% is set to 0 will not appear on the screen. Finally, do not forget to set colour% back to 1 and call the relevant GOSUB when you finish!

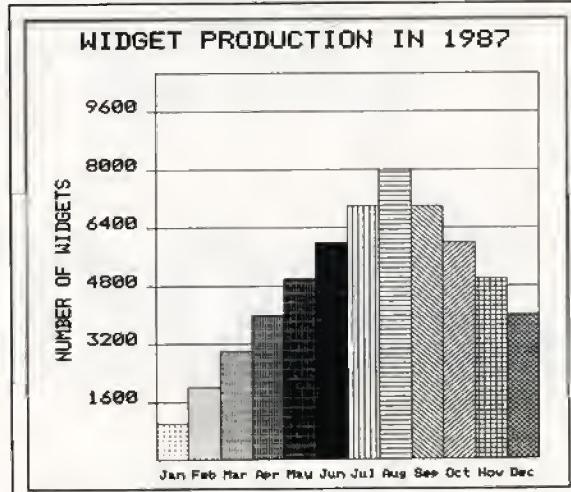
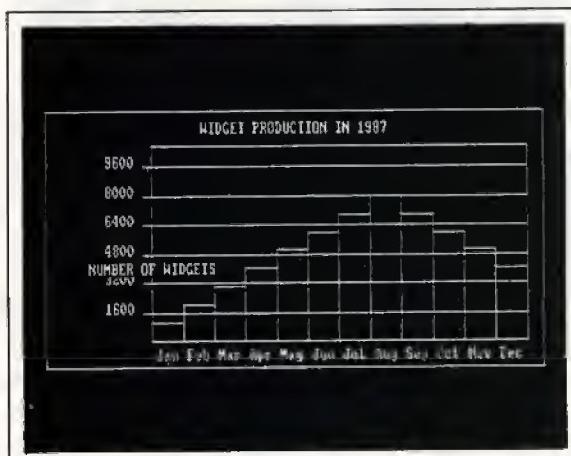
9512 owners beware

The GSX driver as shipped with the 9512 is a slightly improved version of the one 8000 machines have. With one exception, it performs the same. When using the draw rectangular box function with no fill, the 9512 driver erases everything written to the screen earlier on which falls within the boundaries of the box. In contrast, the 8256/8512 driver leaves the screen intact. This point is illustrated by line 10352 in BARCHART.GSX, listing 4. If the line is not changed and the 9512 driver is used, the rest of the picture will

disappear. This problem can be overcome by using the following lines:

```
10352 x1=llxout.box : y1=llyout.box :
x2=x1 : y2=uryout.box : gosub 4000
10353 x1=x1 : y1=y2 : x2=xx2+2 : y2=y2 :
gosub 4000 : x1=x2 : y1=y2 : x2=x2 :
y2=llyout.box : gosub 4000
10354 x1=x2 : y1=y2 : x2=llxout.box :
y2=llyout.box : gosub 4000 : return
```

The line function is being used to draw the sides of the box. The variables 'llxout' and 'llyout' begin with letter Is not number 1s.



```

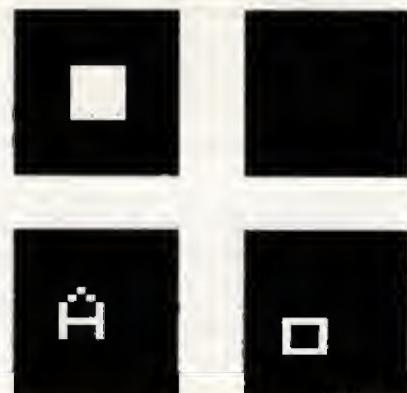
10320 FOR j%=1 TO no.cols: READ bar(j%)
10330 x2=x1+col.wth: y2=y1+(bar(j%)*col.hgt)
10340 fill1%=1: sty%=(j%-1)\6+2: idx%=(j%-1) MOD 6+1
10350 GOSUB 2000: x1=x1+col.wth: NEXT j%
10351 'DRAW OUTER BOX
10352 x1=llxout.box: y1=llyout.box: x2=xx2+2: y2=uryout.box:
GOSUB 2000: RETURN
10380 DATA 27.5,20.725,65.12,8000,400.600,800,WIDGET PRODUCTION
IN 1987,NUMBER OF WIDGETS
10390 DATA 1000,2000,3000,4000,5000,6000,7000,8000,7000,6000,
5000,4000
10400 DATA Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec

```

```

10000 'LISTING5.GSX <LISTING 5 (PART 2)>
10010 x1=30: y1=75: x2=45: y2=90: fill1% = 1: sty% = 1: GOSUB 2000
10020 x1=35: y1=80: x2=40: y2=85: colour% = 0: GOSUB 8410:
fill1% = 1: sty% = 1
10030 GOSUB 2000: colour% = 1: GOSUB 8400: 'WHITE FILL
10040 x1=30: y1=55: x2=45: y2=70: fill1% = 1: sty% = 1: GOSUB 2000
10050 colour% = 0: GOSUB 8510: x1=34: y1=60: hgt% = 2000: mes$ = "A"
10060 GOSUB 3000: colour% = 1: GOSUB 8500: 'WHITE TEXT
10070 x1=30: y1=35: x2=45: y2=50: fill1% = 1: sty% = 1: GOSUB 2000
10080 colour% = 0: GOSUB 8610: x1=32: y1=40: x2=43: y2=40: psty% = 4
10090 GOSUB 4000: colour% = 1: GOSUB 8600: 'WHITE POLYLINE
10100 x1=30: y1=15: x2=45: y2=30: fill1% = 1: sty% = 1: GOSUB 2000
10110 colour% = 0: GOSUB 8700: x1=35: y1=20: sze% = 2000: tpe% = 4
10120 GOSUB 5000: colour% = 1: GOSUB 8700: 'WHITE POLYMARKER
10130 RETURN

```



Last month

These listings will mean nothing unless you have typed in the utility given last month. If you want to get hold of last month's issue, back numbers are available from our Old Barn address for £1.75.

```

10000 REM*****DEMO2.GSX*****
10010 REM*****FILL STYLE AND INDEX DEMO*****
10020 x1=30: y1=91: hgt% = 400: mes$ = "FILL STYLE AND INDEX": GOSUB 3000
10030 x1=0: y1=87: hgt% = 400: mes$ = "sty% = 2": GOSUB 3000
10040 x1=0: y1=77: hgt% = 400: mes$ = "sty% = 3": GOSUB 3000
10050 nxt.stp% = 0: 11% = 85: ur% = 90: style% = 2: GOSUB 10260
10060 nxt.stp% = 0: 11% = 75: ur% = 80: style% = 3: GOSUB 10260
10070 REM*****POLYLINE STYLE DEMO*****
10080 x1=32: y1=66: hgt% = 400: mes$ = "POLYLINE STYLES": GOSUB 3000
10090 nxt.stp% = 0: FOR i = 1 TO 6: psty% = i
10100 x1=0: y1=40+nxt.stp%: hgt% = 400: mes$ = "pst% = "+STR$(pst%)
10110 GOSUB 3000: x1=10: y1=40+nxt.stp%: x2=70: y2=y1: GOSUB 4000
10120 nxt.stp% = nxt.stp% + 5: NEXT
10130 REM*****TEXT DIRECTION DEMO*****
10140 x1=53: y1=36: hgt% = 400: mes$ = "TEXT DIRECTION": GOSUB 3000
10150 RESTORE 10330
10160 FOR i = 1 TO 4: READ dir%
10170 x1=60: y1=20: hgt% = 400: mes$ = "TEXT: dir% = "+STR$(dir%)
10180 GOSUB 3000: NEXT
10190 REM*****POLYGON DEMO*****
10200 x1=17: y1=33: hgt% = 400: mes$ = "POLYGON": GOSUB 3000
10210 np% = 9: RESTORE 10340
10220 FOR i = 1 TO np% * 2 STEP 2
10230 READ pts.in%(i): pts.in%(i) = pts.in%(i) * x.scale#
10240 READ pts.in%(i+1): pts.in%(i+1) = pts.in%(i+1) * y.scale#
10250 NEXT: GOSUB 1000: RETURN: TO LINE 210
10260 FOR i = 1 TO 6
10270 x1=15+nxt.stp%: y1=11%: x2=20+nxt.stp%: y2=ur%
10280 idx% = i: fill1% = 1: sty% = style%: GOSUB 2000
10290 x1=16+nxt.stp%: y1=11% - 3: hgt% = 400: mes$ = STR$(i): GOSUB 3000
10300 nxt.stp% = nxt.stp% + 10: NEXT
10310 x1=0: y1=11% - 3: hgt% = 400: mes$ = "idx% = ": GOSUB 3000
10320 RETURN
10330 DATA 0, 90, 180, 270
10340 DATA 10, 0, 0, 10, 0, 20, 10, 30, 30, 30, 40, 20, 40, 10, 30, 0, 10, 0

```

This is a demonstration listing to show off some of the effects possible from last month's UTILITY listing.

FILL STYLE AND INDEX						POLYGON	TEXT DIRECTION
sty% = 2							
idx% =	1	2	3	4	5	6	
sty% = 3							
idx% =	1	2	3	4	5	6	
POLYLINE STYLES							
psty% = 6							
psty% = 5							
psty% = 4							
psty% = 3							
psty% = 2							
psty% = 1							

001 = X+1P : IDX%: dir% = 90
002 = Z+1P : IDX%: dir% = 90

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QUICKIES!

Attention all you graphic artists! A desktop publishing manual on disc and a drawing package on test

DESIGNER STUBBLE

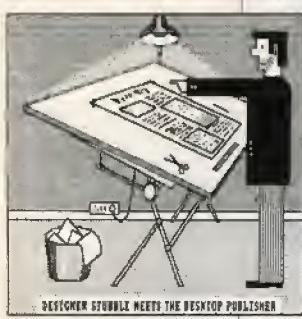
£16.95 per Issue • John Evans (0225 315131)

● All PCWs (for the Desktop Publisher only)

Designer Stubble (Issues 1 and 2) is an unusual and interesting piece of 'secondary' software which serves as a definitive guide to newsletter production using Database's

The Desktop Publisher. The aim of this disc-based guide to the theory and practice of electronic desktop publishing is to show how you can use inexpensive software on the humble PCW with excellent results – just so long as you use it wisely.

Issue 1 is a 46 page newsletter which sets out to educate The Desktop Publisher user in general publishing skills. Cleverly avoiding a stodgy tutorial approach, Evans carries out a very detailed and impartial evaluation of The Desktop Publisher, of the world of computerised DTP in general and its relationship to established methods of typesetting



and editorial procedures. The only comment he made that seems a little open to debate is his claim that The Desktop Publisher manual is an excellent example of succinct, to-the-point software documentation.

The chapter on Newsletter Design and Production is very informative and covers the practicalities of organising an efficient assembly line for a multi-page Desktop Publisher newsletter. There is also a full breakdown of the way in which the Designer Stubble 'newsletter' was put together.

The newly-released Issue 2 offers scope for output enhancement through the use of alternative, high-definition, functional fonts that are suitable for any kind of publication. Used on its own, he says, the program only offers a fairly limited range of 'off-the-peg' graphics; you have to go beyond its limits to fully exploit the capacity of the PCW as a desktop publishing tool. There is detailed description and examples of the new fonts.

He describes how you can transfer sophisticated Stop Press material into Desktop Publisher format using Database's MasterScan file-conversion software, an attractive combination since most mouse-owning Desktop Publisher users have the AMX model which is ideally suited to Stop Press.

The great thing about Designer Stubble is that you can modify the files on the component discs as templates to suit your own purposes. Evans' time spent familiarising himself with the workings of the various programs he mentions represents a significant shortcut for other users.

All in all, Designer Stubble is an excellent complement to The Desktop Publisher and is guaranteed to answer any questions you might have, and even more that you don't, about newsletter production.

8000 PLUS VALUE VERDICT 5/5

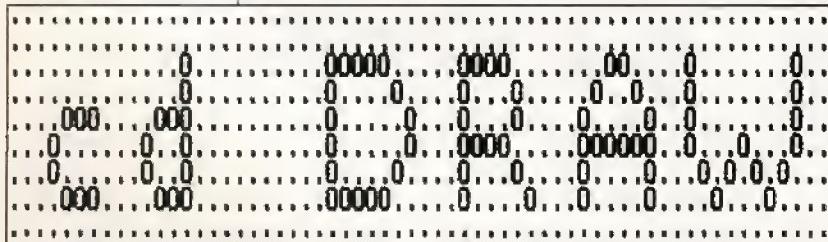
CD DRAW

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● 8000s only

Cd Draw has been designed to reproduce scale drawings, dot for dot, from the screen to the 8000 dot matrix printer. The manufacturers stress, however, that unlike most graphics packages, which often produce a perfect square, say, on screen and a slightly distorted one on printout, Cd Draw will proportion the drawing on printout even though it may look slightly odd on screen (principally because the dots on the screen are further apart up and down than they are across).

It consists of a number of single (or double) keypresses which enable you to move the cursor (in this case, a large arrow-head) around the screen horizontally, vertically or diagonally. Pressing one of the four arrow keys will advance the cursor one millimetre in the appropriate direction; holding down the ALT key while moving the cursor will advance it ten millimetres at a time.



RANGE OF FEATURES

3/5

EASE OF USE

2/5

PERFORMANCE

2/5

DOCUMENTATION

2/5

8000 PLUS VALUE VERDICT 2/5

The program offers a number of drawing utilities on which you will probably have to rely quite heavily because without them you can only draw straight lines. They're accessed at any time by pressing f7 and will enable you, among other things, to produce arcs, circles, dashed or dotted lines, measure the distance between two points on the screen, fill in spaces, draw ellipses, load, save and set drawings to scale.

Unfortunately, using these utilities does tend to be quite hard work. If you want to draw a circle, for example, the program will ask you how many steps you want to complete it in. Producing as smooth a curve as possible necessitates quite a number of steps – say, 36 or so. The trouble is, the program will pause after each step, regardless of whether you want it to or not, to allow you to make adjustments. Producing anything remotely circular becomes extremely tedious because you have to keep restarting the program after every step (represented on screen by the merest millimetre).

Another of the program's major flaws is the difficulty you have in acquiring any degree of precision. Admittedly, the large arrow head (which rapidly begins to assume the appearance of a major blot on the landscape) can be suspended so that you can see exactly where the line you are drawing begins (or ends). Even so, overshooting your destination is something which tends to happen with monotonous regularity. To make matters worse erasing is quite a complicated procedure – especially when it comes to cancelling diagonal lines. Documentation is supplied on disc, and you have to print it out beforehand.

Cd Draw has its limitations both in accuracy and versatility. It will probably prove a useful tool for anyone wishing to reproduce relatively simple drawings, like logos, for instance, but if something more complicated is called for, you might well be better off sticking to a desktop publishing program.



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CLEAN SHEET

Beginner's guide to the spreadsheet: part 8 of the Mini Office tutorial series. Rob Ainsley spreads the word

The Mini Office suite comes with a very powerful all-purpose spreadsheet, which as you know is 'one of the most powerful programs a business or computer user can possess'. So, what exactly is it?

Short cut to happiness

Any selection from any Mini Office menu can be selected just by pressing one letter, usually the first letter. To see which letter to press, press [+]; to hide the list of letters, press [-]. For example, in the opening menu S selects the Spreadsheet without you having to use the cursor and [RETURN] keys.

Sort of annoying

The only major drawback with Mini Office's spreadsheet, if you're trying to choose between it and another program, is that it can't sort data, nor can it export or import data (so you can't sort data externally with, say, a BASIC program). SuperCalc and Cracker will though.

DTP note

You may end up deciding that it's cheaper to photocopy or use a stencil duplicator (hence no photos). With the above spreadsheet, just press [F7] and edit the formula in cell F7. Based on costs of 35p per A3 sheet photocopying, and 63p per A4 sheet for cutting the stencils electronically plus paper costs of £3.50 per 500 A4 for duplicating, the formula in cell F7 for photocopying is $c6*0.35$ and for duplicating is $c4*(3+3.50/500)$.

optimum cover price which will bring in enough money but not deter buyers? First you have to decide on some sort of table layout for juggling your figures in. Suppose you decide on 12 pages of A4 – ie. 3 pages of A3 – with four photos, selling four hundred copies. Say 60p for the cover price and 250 copies will be sold; all you want to do is break even. You'd get something like this:

No. pages A4	12	Cover price	.60
No. photos	4		
No. printed	400	TOTAL COST	?
No. pages A3	3	INCOME	?
Probable sales	250	PROFIT	?

You can work out the total cost, income and profit (or loss) from the figures according to the prices above – but what if it's unsatisfactory? (In fact you get a loss of £120!) You have to start again with different figures – say you put the price up to 95p and only have 8 pages... with a pencil, paper and rubber, awfully tedious – you'll have to keep changing figures until you get the sums right. With Mini Office's spreadsheet, dead easy.

Clean sheet

Run up CP/M and at the A> prompt insert side 2 of your Mini Office disc and type OFFICE[RETURN], selecting 'Spreadsheet' from the main menu and 'Edit data' from the next. You don't actually have any data at the moment of course.

You see a screen with A, B, C etc. along the top and 001, 002, 003 etc. down the side. These are references to 'cell numbers', similar to grid references on a map. The cursor will be in cell A1, and you can move it with the cursor keys to the right into A2, then down into B2, down and across two into D3 and so on. You can see which cell you're in at the top left of the screen.

The idea is that you can put text or numbers into these cells, then tell other cells to show results of calculations based on the figures in cells elsewhere – for example, cell B6 might hold the sum of figures in cells B1 to B5.

First you want a title. This can go anywhere but a good place might be cell B2, not too close to the top and side axes. Cursor there and type the title – Wetwang Parish News or whatever. When you finish with [RETURN] you see that it won't fit into the cell – what you can do is to make the text you've typed an 'overflow string' which will flow into the neighbouring cell. In cell B2 type [ALT]S – this is the command to tell Mini Office to overflow your text – then type the title again. It spills into the next cell giving you a full title.

Now you can set up a table similar to the one you sketched out on paper. In cell B4, enter No. pages A4; in B5, No. photos; in B6, No. copies; in B8, No. sheets A3; in B10, Sales. All these get truncated – they won't fit into the cell – but instead of making them overflows, you can widen the column. With the cursor in the column, just press [ALT]W and then the cursors to widen or narrow the column, finishing with [RETURN]. The minimum width is four characters.

Free space: 327540				Auto-update			
Cell C008 - Blank ---/---				Enter formula			
Contents :c4/4							
Retwang Parish News							
No. pages A4	12	Cover price					
No. photos	4						
No. copies	400	TOTAL COST					
No. pages A3		INCOME					
Sales	250	PROFIT					

Free space: 327440				Auto-update			
Cell F010 - Blank ---/---				Enter formula			
Contents :f8-f7							
Retwang Parish News							
No. pages A4	12	Cover price	0.60				
No. photos	4						
No. copies	400	TOTAL COST	216.00				
No. pages A3	3	INCOME	150.00				
Sales	250	PROFIT					

The numbers to accompany these headings can go in cells C4 to C10. You might narrow this column to four characters for neatness as above. Column D can be blank to give a bit of space; in cell E4 you can put the text Cover price, E7 TOTAL COST, E8 INCOME and E10 PROFIT. Widen it to suit.

Of course, you can put any text anywhere you like, but the above arrangement corresponds roughly with the table initially set out. To edit a cell, move to it and press [F7]; to delete a cell, move to it and press [F1].

Cell, by, cell

Now, the number of pages, number of photos, number of copies you expect to sell and cover price are all to be decided by you; the number of pages of A3 involved, the consequent price, income and profit all depend on the figures you've put in. You can immediately type in any figures you like for the number of pages, photos and so on – just move to the relevant cell and type the number, 12 for the pages in cell C4, 4 for the number of photos in cell C5 etc.

Mini Office automatically puts two decimal places after each; but each figure in this column is a whole number. You can tell it to display only the whole number part by pressing [ALT]D and the cursors to raise or lower the number of decimals. So pressing the left cursor twice has the desired effect. All the numbers in the column are affected (so the initial layout, with all whole numbers in one column, and all prices, which have two decimal points to display pence, wasn't quite arbitrary!).

The number of pages of A3 will always be the number of A4 pages divided by four. Here you want a formula: you want whatever is in cell C4 divided by four. Move to cell C8 and press [F5] to introduce a formula then type c4/4 (ie. 'whatever is in cell C4 divided by four') followed by [RETURN]. After a short pause you see a 4 appear in cell. If you move back to cell C4 and make it 24 pages, you see the number of A3 pages change to 6 automatically.

The income is easy – cover price times copies sold. Move to cell F8 and press [F5], giving the formula as c10*f4, ie. 'number of copies sold in cell C10 times cover price as shown in cell F4'. The result appears and is updated if you revise the cover price or the expected sales. The profit is easy too – just the income (as shown in F8) minus the costs (as shown in F7). Move to F10, press [F5] and enter f8-f7. It doesn't matter that some figures haven't been filled in yet – Mini Office treats them as zero.

Now the total cost is £43 for the first 100 copies you want printed, then £7.95 for each subsequent 100. All multiplied by the number of A3 sheets. Plus a tenner per photo. The formula is therefore a bit involved, but believe me it's $c8*(43+(c6-100)*7.95/100)+(c5*10)$. This goes in cell F7. When you [RETURN] you see the total cost calculated for you, and if you change the number of copies to be printed or the number of sheets the cost is updated automatically.

VAT's enough arithmetic - Ed.

Ah, wait a minute – this has left out VAT (another 15%). The formula in F7 must be edited.

Move to F7 and press [F7] to edit. To make something a VAT-inclusive price, multiply by 115%, or 115/100. Put a bracket at the beginning and end and stick on *115/100. The price is now VAT inclusive. (To get just VAT you'd

free space: 327400 Auto-
Cell C011 - Formula---/-
Contents : IF(C10>C6,"no!!!","")

A conditional formula

A dash of conditioner

In a formula you can enter statements like 'if something is true, do this, otherwise do that'. The 'do this' can be text to be displayed – enclosed in quotes – or a cell reference or another formula.

For example, you can't sell more copies than you print. Therefore in the cell C11, underneath 'Sales', you can display a warning if the number of sales in C10 is bigger than 'no copies' as shown in C6. In cell C11 enter the formula `if(c10>c6,"no!!!","")`. In English this says 'if the number in C10 is bigger than that in C6, print "no!!!", otherwise print nothing'.

Or, you can check that the number of pages of A4 is a multiple of four – you're getting it printed on double-sided A3 paper

which necessitates a finished product of 4, 8, 12, 16 etc. pages. You want to tell C8 to display the number of pages A3, or a rude message if the number of pages A4 is not sensible.

One way of doing this is with a formula like `if(c4=4 or c4=8 or c4=12 or c4=16 or c4=20,c4/4,"no!!!")` or, in English, 'if c4 is 4, 8, 12, 16 or 20, put into the cell the value of cell C4 divided by four – otherwise, print "no!!!".

Mathematicians will be squirming with discomfort at this and preparing more elegant formulae using the 'int' function which rounds things down to the nearest whole number, like `if(int(c4/4)*4=c4,c4/4,"no!!!")` – ignore them.

multiply by 15/100,
to get a VAT
exclusive price from
a VAT-inclusive price
multiply by 20/23.
Adding cells is just
done by formulae
such as `c5+c4+f7`
and so on).

Now the fun begins. You can go back and change any figure – the expected sales, the cover price, the number of photos, the number of pages – and the consequent total cost, income and profit appear almost instantaneously.

Suddenly it's easy to fine-tune your figures to get the best balance between breaking even and not setting too high a price.

To save your sheet, [EXIT] then select 'Load/Save' and 'Save all data' to the appropriate disc with a suitable name. You can load it up next time similarly but selecting 'Load'.

Next month: you may have thought this month was powerful, that's just peanuts compared to the functions introduced next month. It'll also show you how to add a column of figures if you have no calculator handy.

Where to go

Mini Office is available from Database (0625 878888) at £29.95, and jolly good value too. There's a good tutorial book by John Hughes covering all the programs in the suite. It costs £11.95 and is available from Sigma on 0625 531035.



Free space: 327400		Auto-update			
Cell F804 -		Number ----/-			
Contents : IF(C10>C6,"no!!!","")					
Wetwang Parish News					
No. pages A4	12	Cover price	0.35		
No. photos	4				
No. copies	250	TOTAL COST	235.49		
No. pages A3	3	INCOME	237.50		
Sales	250	PROFIT	2.01		

One possible solution to the pricing problem

ASSEMBLE HERE

Andy Wilton looks at HiSoft's updated program development package Devpac 80 Mk II

If you want the best language for writing fast, compact programs, assembly language wins hands down. When it comes to which set of assembly language tools to go for, on the other hand, it's very hard to find a clear winner. The choice of text editor, assembler and debugger – the three being collectively known as a development system – is crucial: without the right set of tools you'll find assembly language punitively difficult to program in. All PCW owners have a development package – there's one supplied with the machine! The utilities MAC, RMAC and SID together provide you with enough assembler and debugging power to get programming, but there's a catch: they're written for the Intel 8080, a precursor of the PCW's Z80, so they can't handle many of the Z80's more powerful commands. They're also a bit short on documentation!

DEVPAC 80 Mk II

£49.95 • HiSoft (0525 718181) • All PCWs

HiSoft's Devpac80, for a long time the PCW hacker's first choice of development system, was overshadowed last year by Arnor's impressive Maxam II, now slashed to £50 to compete further. This Version 2 of Devpac is HiSoft's reply: it's substantially upgraded from the original, with a new debugger, and a Mini Office-style main menu to run the individual utilities or your own finished programs from. But how does it measure up as a whole?

HDE, Devpac's text editor, has a rather antiquated feel to it. Like its predecessor ED80, it belongs to the WordStar tradition of text editors. Editing a file is a clumsy business unless you're familiar with WordStar conventions. NewWord and BrainStorm users will feel more or less at home, but anyone else (ie. most people these days) will need to spend time creating a SETKEYS file and learning some of the more

obscure key combinations. Even the cursor keys have to be defined before use, and simple tasks like saving your file and returning to the menu take three-key, totally unmemorable command sequences. For most users, HDE will be an irrelevance. If you know WordStar codes you'll probably own WordStar or NewWord already, and prefer them to this pale imitation. If you don't you'll find HDE extremely hostile, and most likely end up sticking with Protext or LocoScript.

Pukka gen

The GEN80 assembler is the heart of the Devpac system, and in its latest version (v 2.06) it's a very powerful piece of work indeed. Expression handling in particular is first rate, with full operator precedence and parenthesis. Macro handling is excellent and inclusion directives can be nested up to four levels deep, providing plenty of encouragement to structure and organise your programming properly. More importantly, GEN80 is extremely flexible. At one end of the scale, experienced CP/M programmers will appreciate its ability to produce .REL files, a vital feature if you want to write your own RSXs. At the other, novices will find its hex output facility an enormous help: write your code, assemble it into Mallard Basic DATA statements rather than a .COM file, and you can MERGE it into a Basic program with the greatest of ease. What a painless introduction to assembly language!

Rounding off the trio of tools, the new debugger ProMON is quite an advance on HiSoft's older MON80 but still falls some way short of the Maxam II standard. At heart it's a command driven affair, with disassembly and memory exploration being controlled by typing in short mnemonics – MA to set the memory viewing address, SB to search for a byte sequence and so on. You can move a cursor round the disassembly or memory windows and shift your view around that way, but it's a very slow process: Maxam definitely has the edge here. The debugging facilities themselves are powerful, with a nice set of conditional breakpoints helping you track down those elusive glitches. You can even set a global breakpoint condition, so that the program executes continuously but stops as soon as a condition becomes true. For those maddening times when you know what the problem is but have no idea where it is, this is precisely what you want. ProMON unquestionably looks very rough next to the Maxam monitor, but will be sufficient for most purposes. It's very far from idiot-proof however: exit the program while switched to an alternate memory bank and you'll crash the machine spectacularly!

The modules

Assembly language is a sugar-coated form of machine code, the native language of your PCW. Machine code itself is an almost unreadable series of numbers, each one being an instruction or piece of data for the PCW's Z80 central processor chip. If you've ever used SID to look at the contents of a file, those hex numbers you see are machine code. Because these numbers are so daunting, most people use assembly language instructions – a series of three- or four-letter mnemonics like LD (HL), 87 and

SHLD LXI,3 – and convert them into corresponding machine code numbers using a program called an assembler. As well as the assembler you'll need a text editor to produce your program text (or source code) in the first place – most word processors can fill this role – and you may well want a debugger too. Sometimes referred to as a monitor (nothing to do with TV-style displays!) a debugger is a tool that helps you find errors in your programs, or examine the inner workings of someone else's.

DEVPAC 80 MK II

PLUSES

- ▲ REL files
- ▲ Good hex facility for BASIC programmers

MINUSES

- ▼ Unfriendly text editor
- ▼ Weak monitor

RANGE OF FEATURES

5/5

EASE OF USE

2/5

PERFORMANCE

3/5

DOCUMENTATION

4/5

8000 PLUS VALUE VERDICT 3/5

Bottom line

If you don't like the HDE editor you won't appreciate HiSoft's attempts at integrating the overall package, but GEN80 and ProMON are still perfectly usable from the command line. If you're after a slick, high-performance monitor and editor you'd probably do better looking at Maxam II. GEN80 is an excellent tool for beginners and high-flyers alike, however. If you only really want an assembler – and many people will – Devpac is well worth a look.

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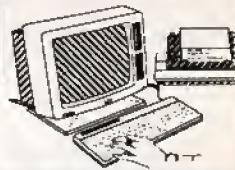
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500771	PCW8512 PCB, Keyboard	£21.95	£28.95
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JUGGLING CLUBS

The PCW can make running a club fun. Rob Ainsley, Sharon Bradley and a few 8000 Plus readers show you how...

If it hasn't already happened to you, it will do. You have 'a computer' so you're pressganged into doing the secretary's job for your local train spotting or hang gliding club.

Fortunately with the amount of software now available your PCW can handle everything: keeping membership records, looking after the accounts, sending out newsletters... you can do the work of a committee in just a couple of evenings' spare time a month. And it'll leave you and the other members free to concentrate on spotting trains or hang gliding or whatever the *real* point of the exercise is.

The most obvious role for your PCW in a club is to handle all the paperwork – newsletters and membership databases for example. As this is the most tedious part of running an organisation this is just as well.

But you can put it to a lot of other uses as well. Many PCW user clubs get free 'public domain' software over phone lines through their PCW plus modem and distribute it to their members; Ipswich Fencing Club use their Amstrad to produce illustrated training manuals; the Spartan Sports Association have written themselves a program to calculate their cricket team members' season and career averages;

History in the making



Gerald Gracey-Cox, regular 8000 Plus reader, uses present-day technology in the form of his PCW 8512 to breathe life into the past and resurrect it. Kidlington and District Historical Society and the Oxfordshire Family History Association, of which he's a key member, require dedicated use of his 8512 not just for storing the results of hard-won research, but also for producing quarterly

newsletters.

The Kidlington and District Historical Society alone has a paid-up membership of over a hundred historians. One of their prime interests has been in tracing the history of Kidlington's School Road and its various buildings, to which end the Society has published a fourth booklet in a series of historical guided tours.

At the moment, Gerald says the Society is busy researching records, and entering into a database land tax returns on the parish between 1761-62 and 1785-1832. This coincides with another study they're doing, Kidlington Enclosure Awards, which charts the abolition of strip fields and the distribution of parish acreage. 'Matching

that to the land tax returns helps us trace all the comings and goings in the area and, of course, changes in the ownership of land', says Gerald.

He uses Masterfile 8000 for storing all his records. 'A typical record', he says, 'consists of Occupier, Owners, Property, Map References, Sums of Tax Money and the dates in changes of land ownership – a good spread of all sources, in fact'.

Gerald also makes interesting use of DCS Software's GenBase, a database which has been specifically designed as an aid to genealogical research. In it he records the subject's name, date of birth, name of parents and spouse. 'If we can, we're only too happy to supply visitors to Kidlington, whose families originally came from Oxfordshire, with details of their family tree'.

GenBase costs £35 from DCS of Stockport (061 439 4841).

Selective printout – search text:
Search start date: none set
Search end date: none set

Scroggs Family Kidlington Oxon,

SUBJECT	DATE	FATHER	MOTHER	SPOUSE
SANDELLS DRTHY:V:	--/--/----	SANDELLS UNKNOWN	UNKNOWN	SCROGGS ALBERT H:
SCROGGS ARTHUR	birth --/--/----	SCROGGS WM:HNY:	SCARROT FANNY	UNKNOWN

Using the genealogical database, GenBase.



Civil War Service

Guy Aston, from Kingston in Surrey, has a two year old PCW 8256 and has been using it to assist him in his work with the English Civil War Society since day one.

The Society consists of two bodies, the King's Army and the Roundhead Association, and strives to recreate many of the actions of the English Civil War that took place throughout the countryside during that tumultuous period of history. 'We're at our busiest during the summer,' says Guy. 'We recreate some of the more minor skirmishes and sieges fought around country manor houses and castles at that time. In the winter, we go to banquets and fairs.'

The Society is self-funding and has a nationwide membership of 2000. Those who join will invariably support the party that held sway in their particular neighbourhood over three hundred years ago.

Guy uses his 8256 to print out the regimental magazine (he belongs to Col. Robert Overton's Regiment of Foot – there are 30 regiments all in all) and the Society newsletter.

Ironically, perhaps, for a society which insists on leaving the twentieth century behind, Guy uses LocoScript 2 for the newsletters and 20-page quarterly magazine, The Rediviva, though is planning to upgrade his 8256 in order to accommodate LocoSpell. 'Since the Society has, in general, an annual turnover of £2000, I use Money Manager to keep a record of the regimental accounts and for monthly analyses of cash flow – and I strongly recommend it.' He uses FlexiFile as his main database for simple address lists, attendance registers, and for storing rank details of each regimental member, but would prefer to use Infomaster ('– if only it would work on the 8256!'). He's also busy

at the moment putting together an illustrated handbook for the regiment. 'I really want to start using desktop publishing and will buy a program soon. The only trouble is, where do you get a selection of clip art featuring pikemen and musketeers?'

SIEGE OF CARLISLE Attached to this paper is a sheet giving details of a facsimile reprint of Jefferson's 'Siege of Carlisle'. Your author has one and would recommend it to you all – good value at £6.

Changed Rate

After deliberation at the recent Commissioner's Meeting, the £1 rate for new

First page of the Society newsletter



the Bristol Guitar Society have even built up a performing database of their sheet music library. When you're looking for a piece of music in the catalogue, you can get the PCW to play you the first few bars of any entry through a musical interface, to see if it's the tune you're looking for!

Breaking down the tasks involved in running a club into categories gives you an idea of the sort of things your PCW can do, and what software, if any, you need to do it.

Letters begin

Letter and report writing is what LocoScript was designed for. You can build up a library of templates for press releases, memos, notices, letters and so on. If you're not happy with the output from your 8000 dot matrix printer you ought to invest in a daisywheel printer (available for around £200 throughout the ads in 8000 Plus) and an RS232 interface (around £60). The output is equal to that of an electric typewriter.

LocoScript 2 enables you to use daisywheel printers directly (you just plug the printer in the interface at the back of your PCW, move an appropriate file from one group to another on your start of day LocoScript 2 disc, and whenever you print it goes to the daisywheel instead of the dot matrix) but at just £20 it's a must anyway – it really is much faster than Loco 1.

LocoMail (£30, Locomotive, 0306 740606 . 9512 owners have it free already) is a mail-merge program – a program which nominally writes a letter to all the names and addresses appearing in another file, but which has vastly powerful features besides. The idea is that in one file you keep a list of all your members' names, addresses, phone numbers, subs paid and so on. In another you write a letter marking out slots for the name, address and so on: 'Dear (name)' – We note that your subscription of (sub) has not been paid. If you don't pay it we will send the boys round to your house at (address)...' and so on. LocoMail then writes a letter automatically to everyone in the specified list. You have options such as 'only print a letter if the subs haven't been paid' and so on. With a little ingenuity you can even write routines to handle your accounts, calculate your financial position and so on, using its mathematical functions.

Regular newsletters to all members really keep a club going. You can survive perfectly well on LocoScript, or on the other hand you can buy a desktop publishing (or 'DTP') program.

In LocoScript you can't do text in two columns, but this needn't matter. If you want a smart multi-column printout with headlines bigger than pitch ten double, you'll have to resort to old-fashioned paste-up. You simply print out your



Data Protection Act

This requires all those who hold personal data on a computer (eg. name/address/details lists on a customer or society member database) to register as a Data User – details on form DPR1 available from post offices. Registration costs around £40.

Fortunately, personal data 'held by an unincorporated members club (eg. a sports or recreational club which is not a registered company) if all the Data Subjects are members and none of them object' is exempt – so you probably don't have to worry! (Quote from the 'Data Protection Act: Guidelines' issued by the Data Protection Registrar).

text as one long column, make up your headlines using Letraset rub-down lettering, then cut everything up with scissors and paste up the bits of paper on a sheet of thick paper. Your local printers or office stationers will be able to print from the result or make up stencils for your duplicator. You can also include line drawings and photographs though the latter must be 'screened' into dot patterns, which will cost a few pounds each (you can get an idea of costs by looking at this month's Mini Office article on page 26).

DTP OK

DTP programs are a bit more sophisticated (ie. difficult to use). You have a page mapped out on screen and can mark out boxes for text or graphics. Text prepared in LocoScript can be fed into the boxes and good DTP programs let you edit the text when it's in the box so you can get a good fit. In the graphics boxes can go pictures 'cut' from a supplied library of pictures and symbols on disc or images prepared under another graphics or DTP program. Most DTPs have some sort of drawing facilities and add-on graphics discs can be bought for them all.

When you've prepared your page you can print it out on your dot matrix printer (which you must buy separately if you have a 9512) and then get those pages printed or stencilled as above. DTP programs are good if you prefer onscreen page make-up to traditional cut and paste (which can be messy). Also the graphics don't need to be screened for reproduction as do photos.

Stop Press (£50, AMS, 0925 413501) is probably the best DTP package in terms of graphics (it also has the very

sophisticated ability to automatically flow text round the contours of a graphic). Newsdesk International is good on graphics and text too (£50, Electric Studio, 0462 675666). The Desktop Publisher (£30, Database, 0625 878888) is a good cheap alternative if you're more concerned with text.

On the record

At its simplest, keeping membership records just involves a list of names and addresses and phone numbers – a straight text document in LocoScript. Better than a written list because you can easily update it and print it out.

However, for a few pounds' outlay and a few hours' work, you can make things very easy for yourself. A database program replaces those card-indexes your library used to have before they themselves got a computerised database. You store a collection of electronic 'cards' on disc, one each to a person. On each card you mark out slots for the name, address, telephone number and so on. The advantage of a computer database is that you can sort the cards into any order at the touch of a button – by name, by subs paid and so on. You can easily select just those who haven't paid or who haven't been to a meeting for a year. You can 'export' these, or all, the names and addresses – ie. make a new file on disc of just the names and addresses (or any combination of any of the items of information) for use in LocoScript, perhaps. In this way you can easily produce up-to-date lists of all members, or just those who haven't paid, or just committee members, etc. in any order you like.

LocoScript fans will be interested in

The Fence of Norfolk

Bill Vinyard is coach, secretary, treasurer, and armourer of the Ipswich Fencing Club, which he began running ten years ago. When Amstrad announced the launch of the 8256, he knew it was the machine he'd been waiting for to help him cut through all the paperwork that managing any kind of club creates. 'The advantages over a typewriter were soon obvious: the ease of typing and correcting, the versatility of margin and tab settings and above all the ability to set the whole thing up correctly before printing out.'

LocoScripts 1 and then 2 were of invaluable help to him, and Bill put them to rather unusual uses. 'It was handy for the choreography of demonstration fights. We do a fair number of these, not only using the modern weapons, but also weapons such as the long sword, sword and buckler, rapier and cloak, rapier and dagger, smallsword, quarter staff and single sticks. The tab settings can be set as required for

blade movements and footwork movements can be arranged for each fencer in columns. I think out these fights sitting at a desk and they usually need some modification when we come to try them out. The script can be amended with ease, reproduced on disc when required, and the 'End Page here' option is useful to ensure that a fencing phrase is not split over two pages.'

Bill hasn't yet ventured into the realms of databases for storing member details, though realises that it's a step he'll probably have to take quite soon. At the moment, he prepares the club accounts and annual financial reports with LocoScript and an electronic calculator, which he then checks over with a pencil and paper.

Bill particularly likes combining text with graphics for his illustrated notes, score sheets and publicity material. He uses Newsdesk International, for example,

to create a heading alongside a drawing of a smallsword and saves it as a screen. Then using LocoScript, he designs files so that they will fit around the graphics. At present, he uses coloured papers and ribbons for posters and handbills, though is thinking of investing in a colour printer soon.

'Time,' says Bill, 'is still my biggest enemy. Certainly the machine has speeded up the work, but it has also eliminated any chance of delegating any of my club duties. In none of the jobs could I possibly be replaced by anyone other than the proud owner of an Amstrad PCW.'



IPSWICH FENCING CLUB

RAPIER AND DAGGER FIGHT No.1

RAPIER & DAGGER

A
1. R'inversa

Parry dagger left, low

2.

Parry sword seconde
Riposte cut to right cheek

B
Parry dagger left, h
Riposte r'inversa
Break away

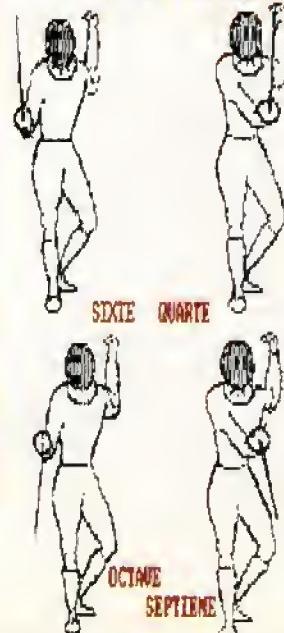
Stoccata under sw

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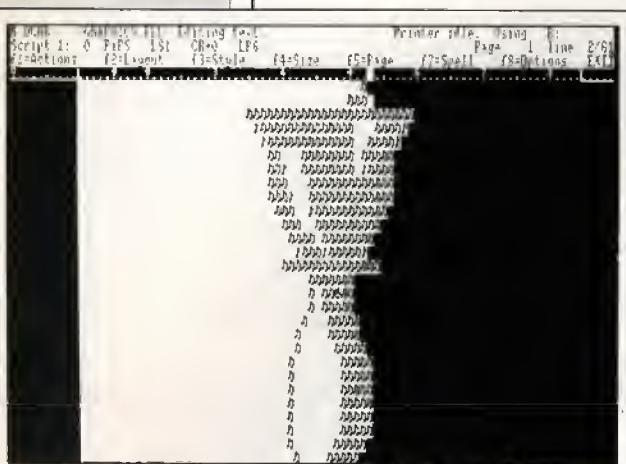
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Screen dump of a handbell using LocoScript 2's facility to print musical quavers.



Malcolm supervising a mass ringing in Buckfast Abbey.



LocoFile, a brand new database add-on to LocoScript. It's a card-index type database, compatible with LocoMail, which you can call up any time from within a LocoScript document. It should be available shortly and is fully previewed on page 10. Otherwise Masterfile 8000 (£50, Campbell Systems, 0378 77762) or AllLast 2 (£40, Rational Solutions, 0566 81511) are both powerful easy-to-use databases.

Mini Office Professional, the celebrated all-singing-all-dancing suite of programs from Database (£30, 0625 878888) has a good database program on it. It also has a word processor on which you can print mailshots from your name-and-address database, a spreadsheet, a program to draw bar charts and graphs and even a communications package! The database is a good card-index type and has all the features you'd need to run a club.

Account for yourself

You can use a spreadsheet to handle your club finances. Also you can experiment with figures to see how best to cost out a project, such as how much to charge for a club newsletter, or how much the tickets for that concert you're staging should be (for a demonstration on Mini Office's spreadsheet, see page 26 this issue).

However, if you're not mad keen on learning how to use what can be a rather involved program, you can get good purpose-built accounts handling packages such as Money Manager Plus quite cheaply (£40, Connect, 01-743 9792). The advantages of PCW accounting are that your financial records are easily updatable and printoutable, and of course your calculations are all done and balanced for you!

Bell-lettres

Malcolm Wilson is the membership secretary to the Handbell Ringers of Great Britain. This association also has a 2000-strong national membership, is split into seven regions and has registered teams from Shetland to the Channel Islands, East Anglia to Northern Ireland. It keeps him fairly busy, so there's never a shortage of uses to which he can turn his 8512.

He uses Cambase database for the purposes of recording details of member teams. There are seven Regional Associations and membership to HRGB automatically ensures membership to one of these associations. 'With 40 new teams joining every year, I use Cambase to produce totals of each category of membership for each region, address labels for distribution of the Society magazine, to produce the annual directory of teams, and to store details of handbell ranges for each team so that I can assess potential demand for music or publications. It also produces lists of membership defaulters for chasing-up later.' Malcolm's only quibble with Cambase is that it won't reproduce the musical sharp sign.

He uses LocoMail to issue standard letters of welcome to new teams, keying in the relevant team number and regional code with address details. The letter is then

printed out, incorporating personalized information such as to which region the team in question has been assigned along with details of the appropriate regional secretary; it's been invaluable in saving me time because of the ever changing nature of regional secretaries from year to year – all Society officers are voluntary and elected annually.'

All in all, Malcolm reckons that the PCW has been of invaluable help to him, especially in taking care of enquiries, writing articles for Reverberation, the society magazine, and generating publicity mailshots. Still, what can you expect from a society that concentrates on one of the fastest growing musical mediums today?

Cambase costs £50 from Camsoft (0766 831878) and is now available updated as Cambase 2.

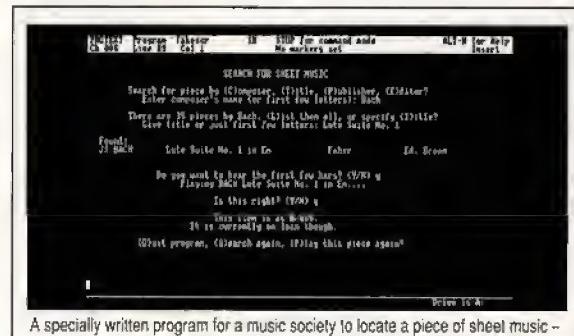
HRGB Database		Team Statistics	00626336 22 SEP 88
Selected Fields			Sort Fields
HRGB Number HRGB Region Team Name Team Address Address Line 1 Address Line 2 Address Line 3 Address Line 4 Address Line 5 Team last paid Team last paid Annual members Annual members Junior members Junior members Ladies members Ladies members Debut team Reverberation			Region Team Region Team Name Team Address Address Line 1 Address Line 2 Address Line 3 Address Line 4 Address Line 5 Team last paid Team last paid Annual members Annual members Junior members Junior members Ladies members Ladies members Debut team Reverberation
First HRGB Number	0001	Last HRGB Number	0001
First Team Name	BF#AGABF#GD#E	Last Team Name	STOP To re-enter range
First Team Address	BF#AGABF#GD#E	Last Team Address	STOP To re-enter range

Team membership details stored on Cambase Database.

DIY programs

There's always something you want done that no commercial package can do quite right. Perhaps you want a cricket averages calculator for your team, a flight simulator for your hang gliding club, or a just-for-fun multiple-choice test for your Esperanto Society. Even in humble old BASIC you can write your own programs to do anything you want: if the PCW can do it, BASIC can do it – maybe not quite as fast as if you'd spent three years learning to write it in Z80 assembler language, but it can do it. Locomotive (0306 740606) do a good BASIC manual for £10.

Writing your own programs is addictive, great fun and gives you enormous satisfaction when you get it right – the only problem is you keep thinking of *just one more* adjustment to make it better... ■



A specially written program for a music society to locate a piece of sheet music – and play the first few bars for you to check it's the right one! (For those of you without sound, the first ten notes are BF#AGABF#GD#E.)

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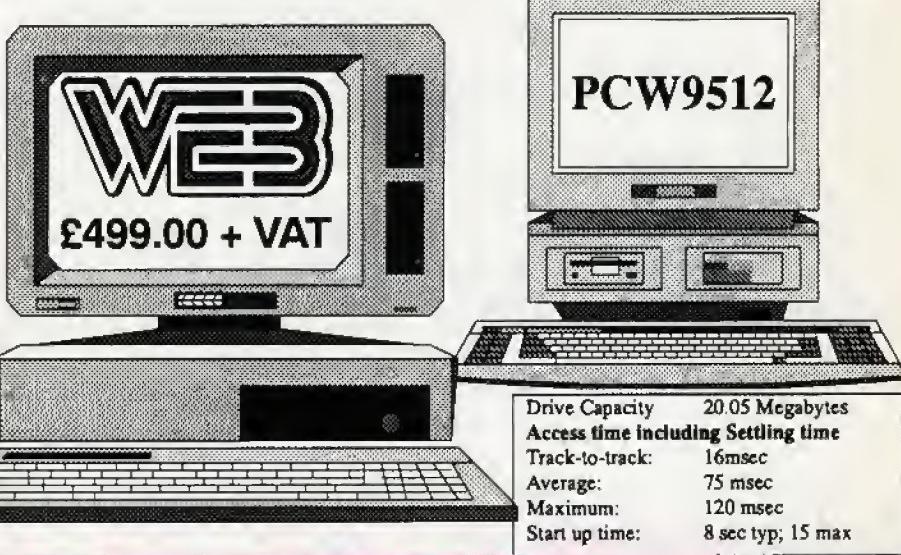
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The great thing about patience, to paraphrase Woody Allen, is you always do it with someone you respect and admire. But Double T Patience gives you an alternative: instead of playing patience by yourself, you play it on the PCW – er, by yourself.

The program comprises of an assortment of six relaxing games, which you can then either play alone or against your computer. None of this Joyce nonsense: it calls itself Pat. Pat converses with you by a series of short printed messages on the screen which is a relief because it's doubtful if you'd want anyone to hear what it's saying to you half the time anyway. Pat acts as a rather haughty nanny always telling you off and as a scorekeeper-cum-commentator, a sort of cross between Edwina Currie and David Coleman.

There's something in Double T Patience for everybody, whether the hard nosed poker addict or the player who can still find hours of innocent enjoyment to be had from the memory game (er, what was it called again? Oh yes, Pairs). This is the only one of the games available on Double T Patience where you have the choice of playing alone, with someone else or with Pat. Pat is not the most patient of hosts and is likely to inform you in distinctly brassed-off tones that it's waiting for you to record your choice if you take too long to enter your decision.

Should you choose to play Pairs with Pat as your adversary, you can then choose which level of play. This ranges from impossible to the pushover (roughly, say, England Touring Team standard).

The other games are Poker Patience which involves inserting a random selection of 25 cards into a 5x5 grid in such a way as to try and create poker hands either across or down the grid. You complete running flushes (series of five consecutive cards of the same suit), straight runs and royal flushes. It all sounds rather reminiscent of the morning after a rather hot vindaloo.

Kuala Lumpur (so named because it was the favourite pastime of the British Governor of Kuala Lumpur prison when he was interned there during the Second World War – what d'you mean, you're not interested?) involves capturing the four aces from 17 stacks of three cards at the top of the screen by strategically altering the structure of the stacks. You assign each one to a base at the bottom of the screen and then build upon them in consecutive suits in the hope that you will ultimately finish with four kings. However, rather like actors, all you ever get are queens or knaves.

Foundation and umpire

This has a success rate of one in six but the odds become less reassuring as you progress further into Double T Patience. The success rate for One Foundation, for example, is one in twelve for the novice and one in seven for

**TU
OF TH**

Sharon Bradley and Tony Flan releases for the card-playing

the expert. Thirty five cards are dealt facing upwards in seven columns of five, one on top of the other. The remaining cards are stacked face down and dealt out one at a time, face up. When this happens, one or more cards from the top of the columns are played on it in ascending or descending value irrespective of suit. When you're stuck, another card is dealt from the hidden stack. The trouble is that the kings and aces are respectively the highest and lowest cards, which means that only one card can draw either of them from their columns – the queen or the two. Suddenly the LBW rules of cricket seem so simple.

Not all the games require the same abilities from the player. Some require a fairly sharp memory (like Pairs), with others (for example, Foursome, the least satisfying game on the disc) it's largely a matter of luck. Some (if you don't want to get told to pull your socks up by Pat) really require you to know what you're doing (Poker Patience is a case in point). Don't feel too self-congratulatory when Pat informs you that you've just made a brilliant tactical move, because it usually precedes, by a split second, an impasse in the game.

The graphics are OK though of course you can't expect wide-screen technicolour from a screen designed to display text only. The program is written in BASIC and so can seem a little sluggish at times.

Double T Patience can be pretty addictive. So Thurston Techniques have thoughtfully built in to the program an escape exit to which you have instant recourse as soon as you feel your boss looking over your shoulder. All you do is press the EXIT key and immediately a plausible looking bar chart entitled *Annual Forecast for 1988* appears on the screen.

Unfortunately, using the cursor keys to make all your selections and to move the cards around does begin to feel slightly laborious after a while. Neither does Pat like you being too brutal with the old ENTER key. After a short while you realise that there has to be an easier way.

The only real advantage to using Double T Patience as opposed to an ordinary pack of cards is the automatic scoring facility and, of course, the feedback that you get from Pat. Other than that, there's nothing the computer does that you can't achieve with your common or garden deck of cards at home. Still Double T Patience will allow you to complete a move without causing any cards to slide off the edge of the table.



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When I first bought LocoSpell, bundled with LocoScript 2 at an irresistible price, I had no inkling of its true potential. I saw it then as simply a tool to seek out and correct typographical errors in my writing, since I never make spelling (SiC) mistakes, with the added bonus of supplying a word count.

In general, I like the program, though it seems a bit slow, especially when the error in the highlighted word is glaringly obvious but you still have to wait for the dictionary to be checked before a sometimes incorrect word is offered as a replacement.

LocoSpell is a celebrated source of amusement when it tries to deal with proper names. The program suggests I change my name to Stamen, while my wife Wendy becomes Weedy. My daughters Katie and Sarah become Kale and Salad respectively. Stamen, Weedy, Kale and Salad Matchers? We seem to be a distinctly vegetable family according to LocoSpell.

This idiosyncrasy is fascinating me, and so I have undertaken some research into how LocoSpell interprets names. Taking a random sample of first names, from Adam to Victoria, I spellchecked them using the small 36k, medium 68k, and large 160k dictionaries in turn. The results raise some intriguing questions.

Scrabbled eg.'s

You might expect the small dictionary to offer simpler replacements than the large, but it is surprising how obscure some of the words are. Claire becomes Clade, Hilda changes to Hila, Laura goes to Labra. None of these words appear in Collins Concise English Dictionary, which contains more words than the LocoSpell dictionary. Where did they get the words from?

And why do some names evolve through the three dictionaries? Victoria receives a sex-change to Victor under the small version, then becomes Victorian before reverting to her proper name with the large dictionary. Adrian was branded an addict by the small dictionary, then strengthened his resolve to become Adamant, before sliding into obscurity by becoming merely Admin. Florence positively galloped through the changes: first she Flared, then she Fluoresced, and finally in a fit of pique Flounced off. Roger was a Roamer and a Rover, until rather perplexingly coming home to be a Roper.

Perhaps one of the great mysteries is that Silas, not one of the commonest of names, remains unchanged on my list by any of the dictionaries, yet does not appear in any of them, while Jesus – a rather better-known name, one might think – is changed to either Jeans, Jests, or Jess.

CASTING SPELLS

Stamen Matchers (sorry, Steven Matthews) reveals how LocoSpell can be used to tell the future...

Every LocoSpell user loves and hates it: the insistence of LocoScript's spell checker in suggesting replacements for any word in your text that it doesn't have in its dictionary. Most of the time it provides harmless amusement for all the family when it tries to replace 'Hamilton' by 'Hailstone'. But it goes much deeper than it might seem at first glance...

But this was not the only fruit of all my painstaking research. After many hours in front of the Amstrad, collecting, collating and correlating, it suddenly florented into my consciousness. Forget about your I (SiC)Ching, your (SiC)Tarot cards, or even the entrails of dead farmyard animals; LocoSpell is a powerful computer-age tool of divination!

Spell binding

Here's how it works: you create a document, type in the subject's name – let's say Janice Bassingtonwaite – then run LocoSpell using either one dictionary, or all three in turn, depending on how detailed a fortune you wish to give. Janice turns out to be Jail Basing, Jaundice Basing, and then Jangle Bashing. It is a simple matter to determine from this information that poor Janice will have health problems, a spell in custody, and then a nasty accident.

Alternatively, a person's character can be divined from their name. Lynn is a Lying, Lying Lynx; Cyril is a Cynic; Michael is up to Mischief. And just in case you still have any doubts as to the considerable powers of LocoSpell to analyse an individual's personality, take a look at Meryl Streep, who in reality walks a Mealy Street, or Bob (Robert) Monkhouse, who is a robber mongoose.

My current project is to devise a LocoSpell-based system to work out the winning horse in a race purely from analysis of the names of the runners and the jockeys. Who needs Pro-Punter? ■

Learn the spell

This remarkable piece of predictive software is available from Locomotive (0306 740606) for £20, though it also comes bundled with LocoScript 2 for £35.



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BOOK LOOK

LocoScript lover Sharon Bradley looks at two new manuals for everyone's favourite word processor

LOOKING INTO LOCOSCRIPT 2

by Susan Rogers

£13.95 • Prentice Hall (01 442 231555)

This is the latest in a series of 'Looking Into...' instruction books which explores the merits of LocoScript 2 for the benefit of the infrequent dabbler and the complete novice who's never even so much as looked at a PCW before.

The introduction is aimed very much at typists converting to word processing. For example, many typists are used to using a lower case 'l' for the number 1 and an upper case 'o' for the number zero. She explains that, as a personal computer operator, you can no longer get away with it. Neither can you carry on blithely pressing the Space Bar in place of shuffling forward with the cursor key because, in wordprocessing, a space is recognised as a text character.

The book consists of 15 assignments all in all. At the beginning of each assignment, there is a list of objectives or goals to achieve (for example, copying, moving, erasing and renaming files). Then follows step by step numbered instructions as to how to achieve those goals.

Each instruction is also accompanied by diagrams of the keys you need to press, simultaneously or otherwise, in order to get the desired result. The resulting screen display is also shown wherever possible.

The book covers all of LocoScript's editing facilities, from the most elementary, like recalling a document from disc, to the more advanced, like inserting one document into another.

Where this book does score massive brownie points over its rivals is in its dedication of the last three assignments to LocoSpell and LocoMail. Although complementary programs, most LocoScript tutorial handbooks will tend to leave them out. Rogers, on the other hand, explores the programs and the uses to which you put them clearly and thoroughly.

Once you've read the book, cover to cover, Looking into LocoScript 2 will provide a quick and easy source of reference. Indeed, this will probably be its chief value to readers of a slightly more advanced capability. At the back of the book, you can find a series of appendices which highlight, among other things, shortcut keypresses for clearing and setting menus, a quick reference guide to the disc management screen and a main menu flow chart (the last of which is extremely useful because for the first time you are able to see in black and white just how each of the menus is related to the other four and exactly how they are accessed). Then follows a six and a half page glossary of terms both general and specific.

This book defies anybody not to be completely conversant with the workings of LocoScript 2 by the time they've turned the last page. Its treatment of the subject matter is both friendly and thorough and exactly what the complete beginner needs.

LOOKING INTO LOCOSCRIPT 2
(ISBN 0 13 540445 2)

8000 PLUS VALUE VERDICT 4/5

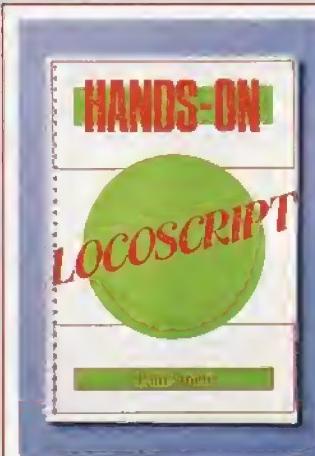
HANDS-ON LOCOSCRIPT

by Pam Smith

£3.95 • McGraw-Hill (062 823431)

Hands-on LocoScript is another book that has been designed to introduce anyone with little or no previous wordprocessing experience to LocoScript – this time to version 1.04, supplied free with the 8256 and 8512.

As the title suggests, this book adopts a practical approach to mastering the basics; in other words doing is the best way of learning. This process consists of a series of eight units, at the beginning of which is listed a four- or five-pronged objective. Underneath the heading of each sub-objective you'll find a series of numbered instructions illuminating each step of the way. Screen shots are conspicuous by their absence, but then a clear lucid text should be able to stand by itself. And indeed this seems to do that.



The action proceeds at quite a cracking pace. Indeed, the tone of the book would seem that little less indulgent towards the complete novice than others with a similar purpose. Each unit concentrates on a group of related objectives rather than on just one, so there is quite a lot to do. The various tasks set by Pam Smith for the user incorporate facilities looked at more closely in former units as well as those just mastered in the current one.

In addition, there is a brief self-help test at the end of

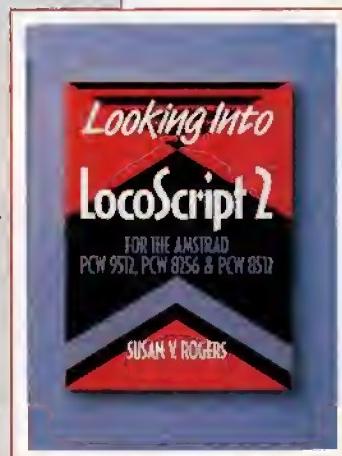
every unit. This consists of a series of informative sentences with strategically placed gaps which you fill in: 'to start up the system you must insert the LocoScript disc or disc into the disc drive'; they are rarely so searching as to leave you in a state of feverish anticipation for long.

This book is of minimal use to LocoScript 2 owners principally because of the differences between the two programs in the keypresses required to access many of the menus, particularly on layout. These days LocoScript 2 is rapidly becoming the 'official' version of the word processor even though Loco 1 is still the one shipped with the PCWs.

Still, the book only costs £3.95 and achieves what it has set out to do: introduce, in a clear and logical fashion, some of the more used and useful functions of one of the most popular wordprocessing software packages to date.

Testing, one two

LocoScript 2 is an updated version of 1, faster and with many extra features. Version 1 comes with all 8256s and 8512s free, version 2 with 9512s. 8000 owners can buy LocoScript 2 for £30 from Locomotive (0306 740606). LocoScript 2 is now regarded as the 'standard' version of the program, not least by Locomotive themselves.



HANDS ON LOCOSCRIPT
(ISBN 0 07 707013 5)

8000 PLUS VALUE VERDICT 4/5

BASIC

The basics

- To get into **BASIC**, reset the machine ([SHFT][EXTRA][EXT] together) insert your CP/M disc and at the A> prompt type **BASIC[RETURN]**. The ok prompt shows **BASIC** is ready for your next commands.
- To leave **BASIC** type **SYSTEM[RETURN]**. The A> prompt of CP/M reappears.

To load a **BASIC** program called, say, PROG.BAS insert the disc with the program on it and type LOAD "PROG RETURN". If the program doesn't end in

BasEg. to load PROG.GSX type LOAD
""PROG.GSX[RETURN].
To run a BASIC program type RUN
""PROG[RETURN] (or whatever the name
is). Alternatively, if a program is already
loaded, just type RUN[RETURN]. You can
run a program direct from CP/M by typing
at the A> prompt BASIC PROC[RETURN]

To clear a program from the working memory, for example before typing a new program in, enter NEW [RETURN].

ט' ט' ט'

Typing in a listing Clear the working memory and type in each line number followed by the line of instructions, for example 250 PRINT "The End"; finishing with [RETURN]. You can type the lines in any order; BASIC puts them in sequence automatically. To edit a line while typing it, use the cursor and delete keys as normal. To edit an existing line, type EDIT 160 or

To **list the existing lines** of a program whatever number it is, use the cursor and delete keys, and finish with [RETURN].

To **list specific lines**, type LIST[RETURN]. To list specific lines, type LIST 50[RETURN] (which lists line 50), LIST 100-200[RETURN] (to list all lines from 100 to 200) or LIST 150-190[RETURN] (to list all lines from 150 onwards). If you want a list sent to the printer, the command is LIST[RETURN]. To **delete** a line type the line number then [RETURN], or use DELETE with similar options as for LIST above.

To **save the current lines** of a

WALLCHART

Here are a few of those things you can never remember in BASIC, all on a nice colourful wallchart for your study. It isn't a comprehensive guide to the commands nor is it intended as a BASIC tutorial - if you want to know the syntax for the arctan or antilog functions, or how to write a program in JETSAM, you'll have to dig out a proper BASIC manual (you can get one from Locomotive on 0306 740606).

etc., they will now be numbered 10, 20, 30, 40 etc. (All line references in GOTOs and GOSUBs are renumbered for you)

Variables Names of variables can be long but can't have spaces; total.cost is OK but total_cost isn't. Integers (whole numbers) are followed by

a percentage: $\text{a} \equiv 5$ or $\text{shoe_size} \equiv 9$ or
no_of_kids $\equiv 7$

Double precision numbers – ie. whole numbers bigger than 32767 or less than -32768 – have a hash: words #54000

Strings – ie. text – have a \$ sign, and strings should be wrapped in quotes:

Real numbers, i.e. numbers which might be very big, or fractions, or have numbers after the point, have nothing:

Hexadecimal numbers must be prefixed by a &; dozen=6HC or hundred=6H64

Large numbers (bigger than 32767 or less than -32768) must be entered in

This is a number between 1 and 10 followed by E and a whole number to convert to normal scientific notation.

whole number, to convert to decimal numbering, move the decimal point to the right the number after the E. For example

11. 234567E4 is 12345.567; 5. 9E6 is 5,900,000; the population of the world is 4,633,222,328.

* multiplies two numbers
/ divides the first by the second

Using the printer PRINT prints on the printer with the + adds and - subtracts

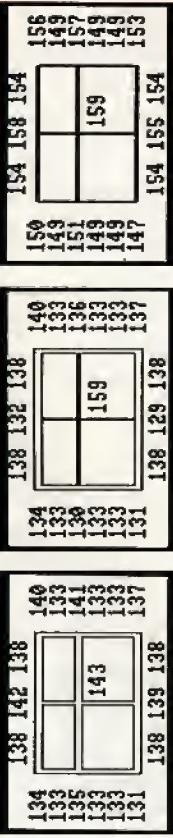
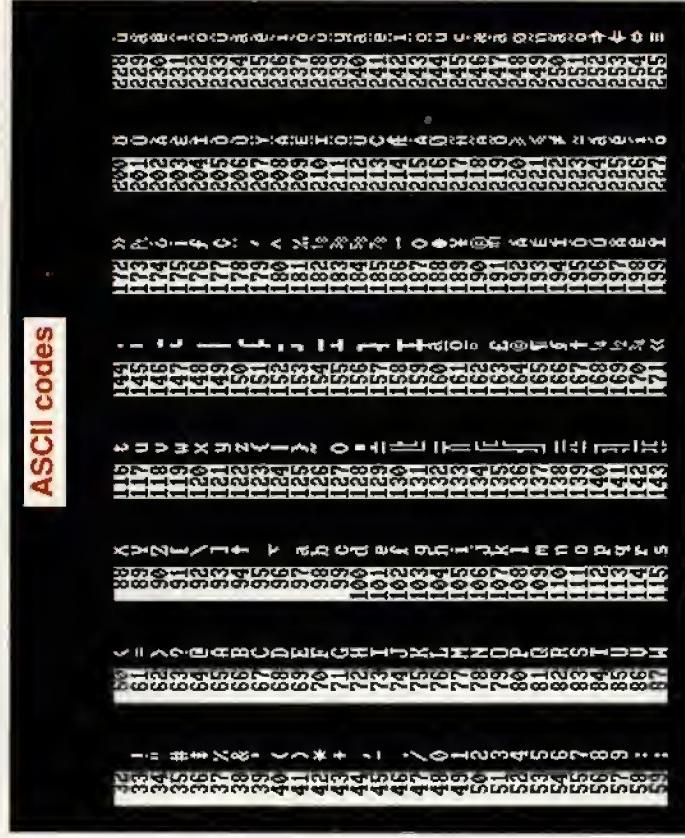
String handling

LEFT\$ gets the left parts of a string as specified. **LEFT\$("wombat", 3)** is "wo" and **LEFT\$("wombat", 2)** is "wo". Similarly if **AS = "wombat"** **LEFT\$(AS, 3)** and **LEFT\$(AS, 2)** have the same effect.

RIGHT\$ gets the right part of a string as above: **RIGHT\$("wombat", 1)** is "r"; if **AS = "wombat"**, **RIGHT\$(AS, 3)** is "bal".

MIDS gets bits out of the middle of a string: **MIDS("wombat", 4, 2)** is "ba". If **AS = "wombat"**, **MIDS(AS, 2, 3)** is "omb" and **MIDS(AS, 3)** is "m".

ASCII codes



Elite text (12 pitch) is selected by LPRINT
CHR\$ (27) + "Y"
Pica text (10 pitch) is selected by LPRINT
CHR\$ (27) + "Z"

File handling

OPEN "I",1,"wombat.doc" opens a file for reading from. Read with INPUT #1,a

letters after the full stop, as above, then .BAS will be automatically factored on.
To renumber the lines in a listing just type RENUM[RETURN] (you can specify line ranges as above), if your lines were previously numbered 1, 30, 87, 46730,

high quality. LPRINT CHRS (27) + "m0" selects a draft. **Bold** is selected by LPRINT CHRS (27) + "E" and cancelled by LPRINT CHRS (27) + "F".

Italics are selected by LPRINT CHRS (27) + "4" and cancelled by LPRINT CHRS (27) + "5".

Printing

To print something and go to a new line just PRINT A\$ or whatever the variable is. If the variable is a number you get a space before it (for the minus sign if needed) and a space after, you can remove them using USING as below.

To print without going to a new line end with a semi-colon i.e. PRINT A\$; To print several things next to each other separate as follows. PRINT A\$, " ", B\$ prints A\$, then a space, then B\$, then a new line. PRINT A\$, B\$, C\$ will print each variable at the next available 'print zone', like tabs set every 15 spaces.

Spaces can be put into a PRINT statement: PRINT A\$; SPC (22); B\$ prints A\$, then 22 spaces, then B\$. **Tabbing** can be done too: PRINT A\$, TAB (27); B\$ prints A\$, moves on to column 27, then prints B\$ (on column 27 of the line below if necessary).

Formatting is done with USING. For strings, PRINT USING " !"; A\$ prints only the first character of A\$. PRINT USING "\ \" ;A\$ prints as many characters between the two backslashes (which are got by pressing [EXTRA] plus the half key twice).

For numbers, PRINT USING "#.#, #;#"; A will print two places of A before the point, and three after. If there are more than two figures before the point it will print them all and display a % sign to show you've messed it up. PRINT USING "#.#, #-"; A will display four places before and one after. PRINT USING "###"; A will display three figures and no decimals, rounding the number if necessary. PRINT USING "####, #-"; A wants six figures before the point and one after, and the comma asks for the digits to be separated into three by commas.

Windows PRINT CHRS (27) + "X" + CHRS (t+32) + CHRS (1+32) + CHRS (t+31) + CHRS (w+31) restricts further output to a window whose top row is r, whose leftmost column is l, whose height is h rows and whose width is w



Escape codes

Cleaning the screen

PRINT CHR\$(27) + "E" clears the screen, and PRINT CHR\$(27) + "H" returns the cursor to the top left, so PRINT CHR\$(27) + "E" + CHR\$(27) + "H" does both.

Cursor positioning PRINT CHR\$(27) + "Y";CHR\$(t+32)+CHR\$(c+32) moves the cursor to row r and column c. PRINT CHR\$(27) + "J" saves the current cursor position and PRINT CHR\$(27) + "K" moves it back to the position saved by the j. Top left is row 0, column 0

PRINT CHR\$(27) + "A" moves the cursor up one, if possible; similarly, PRINT CHR\$(27) + "B" moves it down; ... "C" moves right; ... "D" moves left. Similarly PRINT CHR\$(27) + "I" moves up one,

Cursor movement PRINT CHR\$(27) + "Q" reverts to normal.

Backspace is PRINT CHR\$(8). **Line feed** (moving down one, scrolling if necessary) is PRINT CHR\$(10) + "N" the character under the cursor. **Beep** is obtained by PRINT CHR\$(7), but scrolls the page if necessary.

Deleting PRINT CHR\$(27) + "J" erases everything to the end of the page; PRINT CHR\$(27) + "K" to the end of the line. PRINT CHR\$(27) + "M" deletes the line with the cursor on, PRINT CHR\$(27) + "P" the character under the cursor.

Useful tips

Pressing [ALT] recovers the last command you typed

When editing BASIC listings, pressing [FIND] followed by a letter or number moves you to the next occurrence of that letter or number in the line. Pressing [FIND][FIND] moves to the end of a line.

To cut everything between the cursor and the end of a line press [CUT][CUT]. When typing a listing, ? is the same as the command PRINT and '(apostrophe) is the same as REM.

To pause during LISTING or the running of a program, press [F5]; [F3] resumes the line x=RND(1) assigns a random number from starting 0 and 1 to x, but gives you the same sequence every time from starting BASIC. To get a proper random number, include a line in the listing RANDOMIZE (PEEK (64504)) before your first random number. This starts the sequence at a random place.

PRINT CHR\$(127) + "P" prints the last line of the screen. PRINT CHR\$(127) + "Q" prints the last line of the screen. PRINT CHR\$(127) + "R" prints the last line of the screen. PRINT CHR\$(127) + "S" prints the last line of the screen. PRINT CHR\$(127) + "T" prints the last line of the screen. PRINT CHR\$(127) + "U" prints the last line of the screen. PRINT CHR\$(127) + "V" prints the last line of the screen. PRINT CHR\$(127) + "W" prints the last line of the screen. PRINT CHR\$(127) + "X" prints the last line of the screen. PRINT CHR\$(127) + "Y" prints the last line of the screen. PRINT CHR\$(127) + "Z" prints the last line of the screen.

Underline is selected by LPRINT CHR\$(127) + "U" - "L" (a one, not a letter l) and cancelled by LPRINT CHR\$(127) + "-0"'

Superscripts are selected by LPRINT CHR\$(127) + "S01", substrings by LPRINT CHR\$(127) + "S1" and cancelled by LPRINT CHR\$(127) + "T".

PCW MADE PORTABLE?

Rob Ainsley previews Isenstein's Odessa

Ever wanted to take your word processing with you on the train or to the hotel? The only solution at the moment is to buy a portable computer and link it to your PCW – see this month's Z88 feature. Fine, but there are problems of compatibility: LocoScript and CP/M don't really run on any other machine. They speak different languages and the translations cost you in time and money. However, Isenstein are hoping to bring out a genuinely compatible alternative...

Further details from...

Isenstein's address is Unity Passage, Lower Bridge Street, Chester CH1 1RY. Telephone: 0244 312986.



The Odessa is effectively a PCW which has been stripped down and repackaged into a carry case. It's the size and weight of a rather full briefcase, or perhaps one of those metal camera cases full of zoom lenses and spare bodies – easy to cart around from the taxi to the hotel, but not the sort of thing you'd walk the Pennine Way with.

The keyboard (a repackaged 8000 keyboard with the same arrangement of keys) is fitted in the lid which folds down from the main unit. The monitor and drives are in the top of the main unit. You can't close the lid if the machine is still switched on, so you never have the worry of running your batteries down by mistake.

It comes with either one or two disc drives, both of which are the same as on the 8512.

The internals are the same as the PCW and so run your LocoScript and CP/M discs and everything else as normal. You can work on a LocoScript or Protext document, a Mini Office database, a SuperCalc

spreadsheet or whatever and use that disc in your PCW when you get home with no modifications or transfer procedures. Compare this to the situation with a 'genuine' portable computer such as the Cambridge Z88 or the PPC; the PPC uses 3" inch discs, the Z88 no discs at all. Neither runs CP/M or LocoScript so you can only save your work as ASCII (ie. simple text, no italics or layouts etc.) and then transfer it across a cable link to your PCW using communications software.

The price to pay is that you're getting a real compromise – the Odessa is not particularly light, for example, and the screen is a normal ninety-by-thirty display squashed into a four-inch monitor. You get used to it quickly but if you're one of those people whose arms aren't long enough to be able to read a newspaper any more, you'll find it a trial. You can plug in an external monitor, ie. your PCW at home, though there doesn't seem to be much point in this as if your PCW is there you may as well put the disc in the PCW drive and work on it there. The expansion port the PCW has is also included in the Odessa unit in case you want to fit on an RS232 interface and modem the details of the business deal you've struck from your hotel room back to base.

Get converted

On the technical side, really that's all there is to it. You know what a PCW can do, and the Odessa does exactly the same. It runs off the mains or off internal rechargeable batteries. The claimed life of one charge is four hours though, as ever, in practice the figure is rather less. You can run the standard printer directly off the main unit though you wouldn't normally want to lug that around with you as well.

Isenstein plan to sell the Odessa as it is, complete with printer, for £529 (single drive) or £629 (double drive). Versions with an added parallel/serial interface (enabling you to plug in your modem or run daisywheel printers) would be £70 more. Alternatively, you can supply your own 8256 or 8512 and Isenstein will convert it for you. You get an Odessa plus printer back. Probable costs: £230 (8256) or £310 (8512). The conversion invalidates your Amstrad guarantee though Isenstein supply their own twelve-month warranty.

Now, before you go sending your cheques off, remember that this is only a preview, and so far only a prototype of the Odessa has appeared. Full-scale production is a different matter and hasn't started at this time, though Isenstein say they've already had hundreds of orders. It would be wise to check on the latest situation by phone before committing yourself.

```

4: group 0/LOC02 .825 Editing text.
Layout 1 F12 LSI CR+O LP6
F1=Actions F2=Layout F3=Style F4=Size F5=Page F7=Spell F8=Options EXIT
Mail TestString = "W((Mail))"
Mail Loop =
Mail Keypress = ;(press L) or (N) and Enter ((Mail))
Mail Keypress = "Y" OR Keypress = "N" ;(TestString = $)((Mail))
Mail Keypress = "Y" ;((Mail)) You pressed [Y] ((Mail))
Keypress = "N" ;((Mail)) You pressed [N] ((Mail)) ((Mail)) ((Mail))
Mail Loop @ TestString((Mail))
We would be grateful if you could cross all cheques and make them payable
to the Society.
((Mail)) Response = ? ;(press [Y] or [N])((Mail))
((Mail)) Response = "Y" ;((Mail)) Please don't forget that our final dress rehearsal
Pinafore will be taking place all day Saturday, 15th October((Mail))((Mail))
((Mail)) Response = "N" ;((Mail)) Please make a note in your diaries that on Monday,
October at 8.00PM, there will be the opportunity to see some of our more
active members performing HMS Pinafore at the Globe. Everybody is
welcome.((Mail))((Mail))
Sincerely
Mr Puckleton-Pugh
Chairman.

```

The Odessa screen, life size



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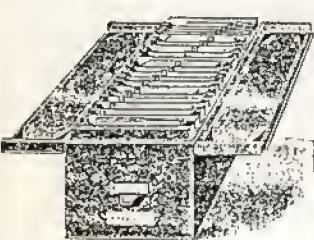
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FREELANCE FINANCES

Once, starving literary hopefuls would crouch in freezing garrets, scribbling masterworks by candlelight while rats gambolled underfoot. Nowadays garrets are hard to find (all converted to luxury yuppie apartments), starving authors all seem to own PCWs, workrooms mustn't get too freezing for fear of condensation in floppy disks, and probably rats are an endangered species. But the squalor of freelancing still has its charm... though such writers spend long hours not writing but thinking about economics, and even longer hours wishing for some cash to be economical with.

Ursula Le Guin's advice to aspiring freelances was simply, "Marry money." Larry Niven suggests getting your parents (like his) to put a million dollars in a trust fund for you. And austere James Blish warned against risking it until royalties from books written in your spare time exceed your "real world" income (if any).

Q: OK, Langford, which method did you use?

A: Er, none of them really. As a sop to Le Guin my wife is at least solvent, and I heeded Blish by lining up two book contracts before I fled the Civil Service, but when I suggested Niven's method my father remarked, "Pull the other one, son, it plays carillon chimes."

For the record....

A vital point when on your own is to write everything down. Yes, I'm sure that with an eye to future fiction you already jot down cruel word-pictures of people who sneeze glutinously into your face and tread on your toes in the bus. More usefully, hang on to bus tickets and every receipt for anything plausibly a writing expense, with a view to the coming tax return. Without tangible records you'll forget what you've spent.

Paying by credit card and treasuring the little greaseproof chit can be useful when (as with British Rail) getting a receipt involves surly reluctance and delay. But when reclaiming VAT, strict Customs & Excise inspectors won't allow any expense not backed up by a receipt carrying the supplier's VAT number... so watch it.

Q: Where in my accounts do I

put expenses for disks and printer ribbons?

A: Stick 'em both under Stationery.

Q: Can I claim the cost of my new PCW?

A: Eventually. However, a computer is that wonderful thing a "capital asset", and to encourage industrial investment in new equipment the Government lets you claim only 25% "depreciation" expenses each year. Pay £400 for a computer and you can allow £100 against profits the first year, £75 (i.e. 25% of the remaining £300) the second year, £56.25 the year after that....

Q: Blimey. You mean if I earn £400 and spend it on a computer solely for my writing business, I pay tax that year on £300 profit which I haven't got?

A: You're catching on. Actually, £300 total profit is a couple of thousand quid below the level at which you start paying tax.

Learn to be a leper

My favourite cartoon shows this hooded character in loathsome rags, ringing a bell and calling, "Self employed! Self employed!" Full-time writers tend to be self-employed, the exceptions being those who've set up limited companies to avoid graduated tax on an embarrassingly huge income. (Less wealthy authors trying this dodge find they merely pay embarrassingly huge sums to accountants, who probably suggested the idea for this very reason.)

Self-employment gives you the privilege of paying Class II National Insurance contributions, which the DHSS extracts directly from your bank account to the tune of (currently) £4.05 a week, whether or not you're earning anything. Exercise for the student: program your PCW to calculate each month's cost, bearing in mind that DHSS months always have a whole number of weeks. Each year you're also done for Class IV contributions, a percentage of your taxable profit.

Q: What benefit does that bring?

A: None whatever. The Class IV rake-in is your governmental reward for becoming self-employed and forfeiting unemployment



A page in
the company
of author and
PCW pundit
David Langford

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benefit. Sometimes the thrown-off shackles of former employment can look positively cosy.

Writers don't just write

Finally, the carefree joys of freelancing had better not be confined to writing. If your PCW muse leans mostly to poetry or short fiction, it's important to diversify. Even famous poets don't make a living from poetry: when not independently rich or mundanely employed, they live on editorial work, reviewing, journalism, reading for publishers, teaching, lecturing, media pontification, or writing articles in *8000 Plus* about how the PCW made it a doddle to produce *The Waste Land*, *The Faerie Queen* or *Beowulf*.

The list is similar for novelists, with one notable addition: hackwork. Ever wondered who writes those novelizations of obscure films... that is, those not by Alan Dean Foster? Usually some

temporarily broke author of moderate repute, who did a rush job of padding out a thin script for thick readers, and wisely used a pseudonym.

I've tried most of the above means of bridging the gaps between "real" books. With practice they work addictively well, leaving no time for the Great Novel which you feel you really should be writing....

Q: Oh come on, when I leave my job I'll have lots of spare time for everything.

A: It's a mysterious rule of freelancing that an entire day with nothing to do but write can produce less than the few hours one used to manage in the evening after work.

Q: Well, why are you wittering on in *8000 Plus* when you could be writing chapter six of your sensitive comedy of manners *Sex Pirates of the Blood Asteroid*?

A: The money, chum, the money.

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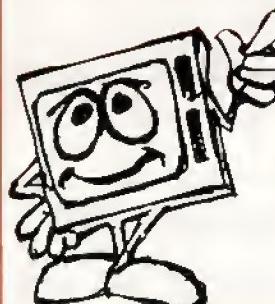
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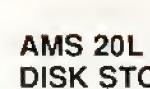
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HEALTHY & HAPPY

Andrew Bibby looks at some of the health risks of using computers

Disaffected friends or partners, wondering what the PCW has to offer that they haven't, may mutter darkly that your relationship with your computer just isn't healthy.

And they may have a point: wonderful as the PCW can be, there are health and safety implications about using any sort of computer system, and that includes the humble Amstrad as much as a complex office based installation.

Let's not be sensationalist about this: your health won't be irreparably damaged the first time you take out your systems disc and load LocoScript.

But let's not be blasé either. You wouldn't refuse to operate a lawnmower just because, if used carelessly, it could trim off your fingertips as well as your grass, but you would take sensible precautions, like keeping your hands well away from the blades. A similar attitude should apply to use of the PCW: it's just common sense.

The problem is that since a computer is an electronic piece of equipment, some of the potential health issues aren't quite as obvious as those encountered with a lawnmower. If you're the sort of person who initially found the A> prompt hard to relate to, you may not be wildly keen to discuss the safe levels of radiation to the nearest millitesla. Not only that, but any foray into this highly technical scientific world quickly shows how divided expert opinion can be. Computers – even PCWs – are after all new technology.

Nevertheless it's not all the stuff of PhD research. Let's start with the eyes. Peering at the PCW screen seems unlikely to cause any permanent damage to your eyesight – vision does change naturally over the years and any deterioration in your eyesight is probably just a sign that you're getting old! What you may suffer from, however, is eyestrain. In other words, the muscles which control your eyes are getting tired. This can happen if you constantly focus and refocus your eyes (for example, if you are regularly looking down to read a text, then looking back to the screen). Users of bifocals, incidentally, are likely to need special glasses to adjust for the usual distance to the screen.

Be honest: how many times have you switched off your PCW after a hard day's (or night's) use, and walked away rubbing your eyes? Or begun to experience dull aches and pains when you've been sitting at your computer too long? Just how unhealthy is using a PCW?

Glaring deficiencies

Glare can also be a problem. Your eyes will obviously have to work harder to read text on your screen if the screen is picking up reflections or glare from elsewhere in the room. One simple rule is never to position the PCW in front of a window or source of light. It can make good sense, too, to invest in an anti-glare filter, which can be bought for under £20 from many advertisements in 8000 Plus.

It seems ironic, given the sophistication of computer equipment, that something as basic as glare can so often be allowed to sabotage its usefulness. Usually, it's just that somebody hasn't thought: when the Observer recently moved into their lavish new offices in Battersea park, the screens for the sub-editors were placed directly underneath a glass roof. The roof was very attractive, but the poor subs were forced to resort to cardboard boxes to enable them to read the text on their monitors.

9512 readers, with their black and white screens, may be wondering whether their screens are better than the familiar lime green on dark green screens of the 8256/8512s. But, despite the 'paper white' screen of the 9512 adverts being claimed as easier on the eye, there is little research one way or the other. Which you prefer is ultimately a matter of personal taste.

It's not just your eyes which can get tired. A wrongly positioned keyboard and screen (or a wrongly positioned you) can cause aches and pains, including headaches. The Manufacturing, Science and Finance union (MSF) recommends that computer screens should be about 70cm or so from the user (get out your ruler) and they also point out the importance of correct posture. Obviously if you use an uncomfortable chair or put your PCW on a table which is too high or low you are creating potential problems; a proper adjusting office chair may seem a rather unexciting

Screen test

Anti-static screens are not a common accessory for the PCW, but they are available at a price. Promar quote a price of £48.40 plus VAT for a self-fit screen, for both 8000s and 9512s, which also comes with an earthing wire. Promar's telephone number is 0794 522434.



Any old ion?

If you ever need to feel extra guilt that you're spending time on the computer when you should be doing the household chores, try running a finger across the PCW screen. Chances are it will quickly be covered in dust.

However, this won't be just any old dust, not at least according to Alan Taylor of Promar. He points out that the cathode ray tube which produces the visual display has a strong positive electrostatic charge, and this attracts negatively charged dust particles from the atmosphere around the screen.

In the meantime, the positively-charged dust is being repelled from the screen, and since human skin itself normally has a low negative charge, these positively-charged ions head straight for the person operating the computer. He claims that this can explain dry skin, sore eyes and general lethargy sometimes experienced by computer operators.

The picture painted by Alan Taylor, of positive and negative ions rushing about in front of your PCW screen, might seem like

something out of a shoot-'em-up arcade game, but in fact he describes the air disturbance created as very similar to that experienced during a thunderstorm. He also claims that the absence of negatively charged ions in the atmosphere is not particularly healthy, an argument also advanced by the companies who make air ionisers. Ionisers create extra negative ions, which some say help to make modern office buildings more pleasant places to work.

The answer to electrostatic, according to the VDU Workers' Rights Campaign who say that the problem is a serious one, is to fit anti-static filters to computer screens; in fact, they recommend that dual-purpose filters be used to cut out both glare and static. The difficulty is that, for the filter to operate effectively and drain away the static charge on the screen, an earthing wire is necessary. PCWs, as we have seen, are not earthed, and that means that the earthing wire running off from an anti-static screen will have to be taken to an external earth point.

Further info

If you want to know more, the VDU Workers' Rights Campaign's parent organisation, City Centre, has produced a VDU hazards factpack, available for £2 (inc p&p) from City Centre, 32-35 Featherstone St, London EC1Y 8QX.

computer add-on, but could be a good investment. Some specialists are critical that the PCW screens do not have a tilt mechanism to enable users to swivel them into position.

Wrist action

Watch your keyboard technique too, say the Health and Safety Executive – your wrists should be flat over the keys, and not bending up to touch them, as can be the case if you rest your wrists on the edge of the keyboard or table.

This is all the stuff of ergonomics, and it might seem like glorified common sense. But, according to Gill Kirton of the London-based VDU Workers' Rights Campaign it's important. She is worried by the growth in Repetitive Strain Injuries, RSI, caused by regular and recurrent movements of the fingers and arms over a keyboard. 'This can affect people working at home using their Amstrad PCWs', she says, 'though often people don't connect their aches and numbness with this.' At its most serious, RSI can shade in tenosynovitis (inflammation of the tendons, sometimes called typists cramp), which is a prescribed industrial disease, and both debilitating and painful.

However, it is the subject of electromagnetic radiation from computers which is the hot potato.

Tony Webb, a founder member of the VDU Workers' Rights Campaign is nothing if not forthright. 'My

recommendation to Amstrad users is that they dispose of them as quickly as possible' he says. Gulp. This is not the sort of thing that readers of 8000 Plus (or its writers) are going to want to hear. Does he really mean us?

Tony Webb claims that the low frequency electromagnetic emissions from the Amstrad stable are much greater than those from many other computers, such as IBMs or Olivettis. 'It would cost Amstrad pennies to remedy this at the design stage, but they haven't taken this issue on board', he says.

Radiate and fade away

The argument, however, is whether electromagnetic radiation from computer screens is a danger to health. The Health and Safety Executive say there's no proof that it is. The radiation from VDUs is 'well below the levels considered harmful by responsible expert bodies such as the National Radiological Protection Board in the UK', according to the HSE's 'Working with VDUs' leaflet.

But recent research in California, much publicised in the British media, found that there was a statistically significant increase in the number of miscarriages experienced by women who work at computer screens. Again, the HSE are inclined to be reassuring: 'if you are pregnant or thinking of becoming so, there is no reason to stop working with VDUs', says their leaflet.

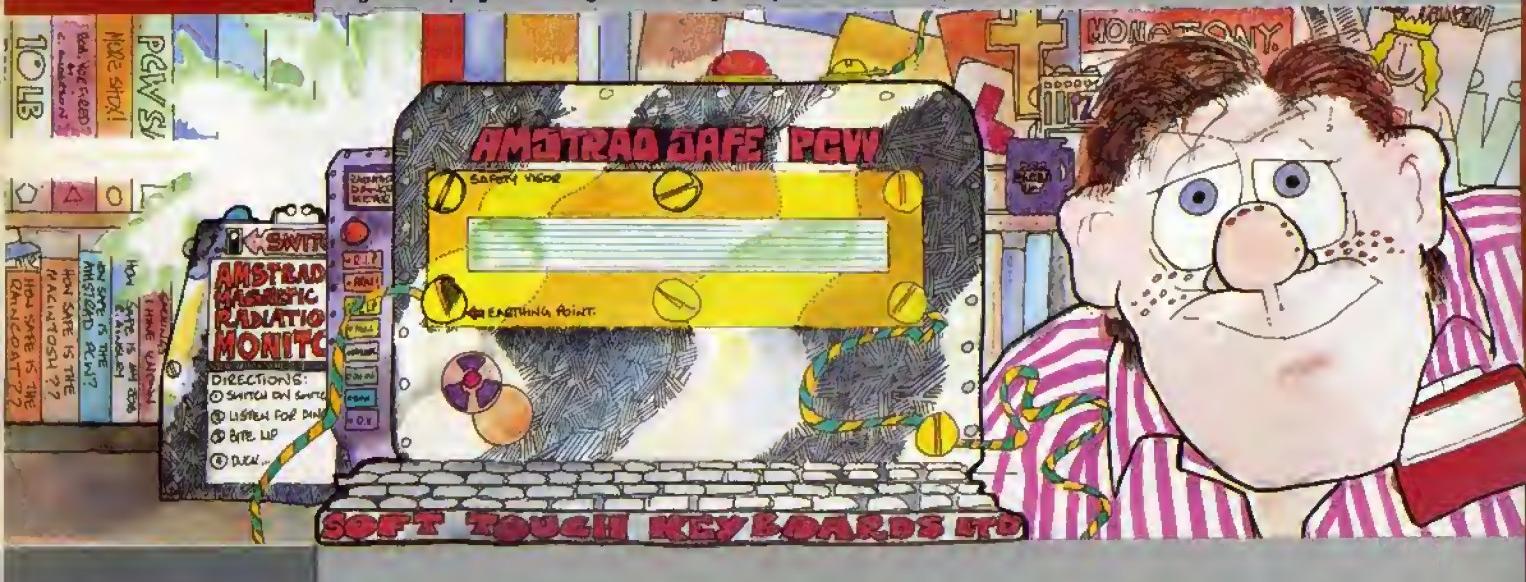
The case is not proved conclusively either way. Tony Webb accepts this but adds, 'There is growing evidence that electromagnetic radiation from VDUs could be harmful for human beings and in these circumstances, if you can eliminate something, it is prudent to do so.'

A fascinating case

IBM and other computer manufacturers have cut down on these emissions by constructing earthed metal casings to act as screens around components. PCW users could arrange for their PCWs to be similarly shielded, but according to Alan Taylor of Fromar Sales, which undertakes this kind of work on commercial computer installations, it would be very expensive. One additional difficulty is that the PCW does not come supplied with an earth cable.

In general, however, what every PCW user can do is to follow good office practice and take frequent breaks from the screen. The MSF union advises their members to take a half hour break after every two hours of using a computer. In practice, it can be hard to remember. Journalists on one West Country newspaper even rigged up a flashing computer message 'SCREEN BREAK' to persuade reluctant colleagues to take it easy (perhaps someone out there could devise a BASIC program to do the same thing for a PCW).

Which reminds me: I've been sitting typing this into my PCW for at least a couple of hours, and if you don't mind I'm going to go for a coffee.



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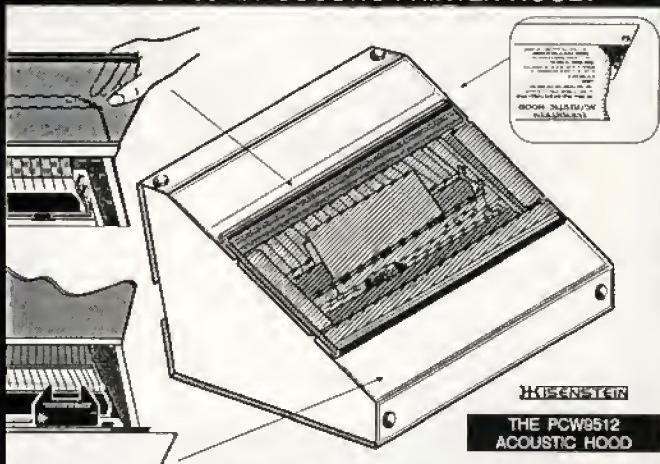
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You can always tell a PCW owner by the pale, wan complexion. Whole sunny summers are spent cloistered in a dark room word processing away feverishly. How different are the happy Z88 owners who can create immortal prose or concoct cheeky letters of complaint on the beach or on top of a mountain. Their rosy cheeks and sturdy legs set them out as far more adventurous, healthier fitter specimens.

OK. That might just be overstating things a little, but it is true that PCWing can be a compulsive behaviour which certainly can restrict your outdoor activities. Worse still, after about six months of constant use, many PCW owners find they are so used to writing at a keyboard that they have atrophy of the ballpoint pen and can't even write a note to the milkman without printing it out in near letter quality.

This is where the Z88 comes into its own. At the very least it is a computerised Filofax, able to keep track of all your names, addresses, details and dates. And how much more impressive to update your Z88 diary on the train than your Filofax. But with a bit of imagination and a little effort it can become a powerful computing tool which acts a little bit like a PCW on the move.

It has to be admitted here that few people would be totally content with the Z88 as their only computer. Restrictions in the operation (especially the screen size) means that most users will be happy to slip into the comfortable surroundings of LocoScript or Protex to polish up the finished article after a hard day's word-processing in the back garden.

But this makes for the perfect symbiotic relationship. Write a rough first draft on the Z88 word-processor and then transfer over to the PCW for polishing and printing.

What is a Z88 anyway?

A Z88 is, like the PCW, a computer on which you can carry out a wide variety of interesting tasks. Unlike a PCW however you don't start up using a disc. All the applications are there from the moment you start up. When you switch off, the task you were working in is saved and is ready to use when you restart again – unlike the PCW's memory drive.

You can have a number of applications in memory at any time or you can save and load files. Saving a file obviously gives greater security against the file being lost if anything goes wrong.

It runs on four AA batteries (although you can get a mains adaptor for £9.95) and this will last for up to 20 hours of work or for a year if the machine is lying unused on the shelf. As the applications are being saved even when the machine is switched off

PCW + Z88

Alec Rae starts a new series to see how the Z88 and the PCW can live together in peace and harmony

PCW owners will happily discount every other personal computer as being totally useless – except a small black box about the size of an A4 pad. Cambridge Computers' Z88, brainchild of the charismatic Sir Clive Sinclair, seems to have found a place in the heart of many PCW owners. Before the complicated how-to-do-it's start next month, a brief introduction to what the Z88 actually is..

it is still using some power. If you remove the batteries everything in memory will be lost.

Like the PCW, main use is probably word-processing although it can also be used as a spreadsheet and a simple database just using the applications available.

In fact when you buy a Z88 you get a complete package. No need to buy any of the Write Hand Man or Companion type 'pop-up' utilities. They come as standard.

Lowdown on popdowns

These 'popdowns' include a calendar, clock, alarm, and calculator. A lot more than even a Filofax, you must admit. For instance the calendar is accurate from 1753 (handy if you haven't done your expenses for a while) and will happily allow you to work out what day of the week the first of January 3000 will be (it's a Wednesday by the way) for those people who really like to plan ahead.

The alarm is perhaps a little on the quiet side to wake you up in the morning but it would be invaluable for keeping you in touch with important appointments during the day. It does give you space for a message with each alarm so you could set it to tell you to have a coffee at 11 o'clock and again at 5.30 that it's time to go home.

But more important than 'pop-downs' are the applications. These are in effect the equivalent of full



Where to get it

The Z88 is produced by Cambridge Computers Ltd (0223 312216) and is available through branches of Dixons for £299. The Zbase software is available from Wordmongers Ltd (0296 437878). A BBC BASIC manual is soon to be available from M-TEC Ltd (0603 870620).





blown programs on your PCW – a diary, a word processor, a spreadsheet and an area where you can process in BASIC.

Applications in writing

The diary gives you as much space as you require to fill in your appointments for any day for certainly as long as your Z88 will last. Tie it in with the alarm and every day the computer will automatically produce your diary entry for the correct day as you wake.

Instead of using scraps of paper, you can take notes of all important messages, orders, memos and most importantly you can keep track of your expenses on the spread sheet and have the totals all worked out automatically.

Whether or not you would use the BASIC section depends on your own imagination. It is BBC BASIC, so Mallard BASIC users would need a bit of time adjusting to the differences but it is a powerful form of BASIC that will do virtually anything you want. A manual specifically for Z88 users is supposedly on the way.

It is perhaps more difficult to work out what you would do with BASIC on a Z88 than a PCW. As it comes with so many utilities as standard there is not the burning necessity to produce these in BASIC as there is with the PCW. However there are still uses for it (especially in areas like preparing text for word processors in other computers) and for anyone into BBC BASIC (and who can get hold of the mythical CP/M version of the language) this would allow you to program, anytime, anywhere, anywhere.

But most important by far the Z88 allows you to write a letter of complaint to British Rail about the lateness of their services while actually on the train, or better still write your next 90,000 word novel in the station waiting for it.

Pipedream – the arguments

The first thing you must learn about the Z88 is that

Pipedream is the imaginative name for a rather imaginative application which doubles as a word processor and a spreadsheet.

As with any other change in word-processors there are a number of features in Pipedream that will delight and some which will depress. It is admittedly quite a complicated piece of software which might take a week or two to get fully grips with. You can produce all effects by picking an option on a menu or by one of an infinite number of keystrokes.

Instead of [ALT] or [EXTRA] keys, the Z88 has a diamond and a square key. In simple terms the Diamond key usually prefixes a command that will affect the program you are in – for example Diamond S will swap the case of the letter that the cursor is on, making a 'w' a 'W' or vice versa. Sometimes you find that you need to type in a number of letters after the Diamond. For instance something simple like 'split this line at the cursor,' the sort of the thing you could do in most word-processors by pressing [RETURN], needs Diamond ESL in Pipedream.

The Square starts a command that will allow you to do something in another application or popdown. In Pipedream pressing Square C will bring up the calendar or Square D will take you to the diary.

Although it is possible to survive using the menus it is a rather slow, tortuous business, involving pressing the Menu key up to seven times before you get to the correct list of options.

There are a number of the options actually printed on the front of the machine just below the screen but even these are only a fraction of the ones that are available. It may seem frightening at first but at the end of the day you quickly find you remember the ones you need.

The Future

Although many might be content with the package that comes from Cambridge there are now a number of developments that make the Z88 even more of a viable proposition. First to appear was the RAM and EPROM packs which add to the memory size of the machine.

The standard machine has 32k of available space, which in practice is not enough. Save a couple of reasonable sized files and have a couple of applications in memory and you get warning messages about the memory being full.

Now you can get 32k, 128k and 512k RAM packs (from £20 to £200) which allow you to store any files and modify them at will. If RAM packs are removed from the machine all data is lost. The 32k and 128k EPROM packs (£20 and £50) are similar except that they keep a permanent record of the files (they can't be edited) and they can be removed without the data being lost. To clear these of data you need to get a special EPROM eraser.

Where EPROM packs come in most useful is for program files, the equivalent of program discs for your PCW. For instance now you can get a modem that allows you to send files along the telephone to any other computer anywhere in the world. You get the modem (£172.45) which is small enough to slip in your pocket (assuming you have quite big pockets) with an EPROM Pack that contains the comms software.

Last month Wordmonger, the software house specialising in software for the Z88, launched Zbase, a database for the Z88 very similar to the PCW's dBase 2. Like dBase it is a powerful programming language which allows you to produce very complicated applications. It is thought that a number of commercial applications will be developed using Zbase as a basis to allow for specialist applications. Again Zbase comes on an EPROM pack.

Over the coming few months we will be looking at the different aspects of the Z88 and how they can be tied in with your PCW including using the PCW with the modem and the new Zbase.

Where's the printer?

The main problem with the Z88 (like all computers other than the PCW!) is that it doesn't come with a printer. Perhaps the makers feel there is enough crammed into such a tiny space. But it has to be admitted there is little point in being able to produce hundreds of letters and not be able to print them out. This means investing, at least, another £150 for the cheapest dot matrix printer.

On the other hand PCW owners are laughing. For the price of a RS232 (the box

that fits on to the expansion port at the back of the PCW – about £50) and a serial cable (about £9.95 from Cambridge) you can make full use of PCW's faithful old printer.

It is, of course, possible with a little effort to print direct (full details later in the series) but it is by far easier just to transfer an ASCII file (save with the Plain Text option in the Z88) to the PCW and then Insert Text in LocoScript. Tidy it up, adding headers, footers and print codes and print out in the normal way.

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Disc damage falls into a number of distinct types. Corruptions are caused by power dips during disc access, usually but not always in the directory area, are the most common. Repairing this type of damage, particularly in the directory area, is like a jigsaw puzzle. I have to scan the whole disc to find the missing material and then reconstruct the corrupted directory entries. I then use the public domain program LOOKAT to dump them to the printer, then I piece them together into whole files.

Damage elsewhere is handled slightly differently. Don't try to mend a *program* that has been damaged – anyway you have a master disc to make a fresh copy. LocoScript documents, if damaged, usually can't be immediately re-read by LocoScript, which either freezes up, stops at the point of damage, or goes into an endless loop. To recover these, or data files from any other program, you need thorough knowledge of the program's file structure.

Perhaps the second most common problem is caused by faulty copying, either with DISKIT or LocoScript 2, when leaving the source disc in the drive instead of putting in the destination disc. These copy programs make two changes to the destination disc, first to avoid the use of a partially copied disc and second to distinguish one disc from another. This usually results in a 'bad format' type of error.

Knife Plus will replace the boot sector and make the disc usable again, but it leaves the other change on the disc, which may be in a key file or in an unused area. If it is in a program it could be dangerous to use. You have to know what you're doing to repair this (I use a modified version of the useful repair utility from the public domain, DU).

The third commonest problem is not the kind resulting in the dreaded 'missing address mark'. In these cases the disc remains operable, but the programs being used object to the data or behave curiously. There are many possible causes of this type of problem: bugs, bad 'exits' from the program, power dips etc. Recovery of data is usually possible but there is no general approach.

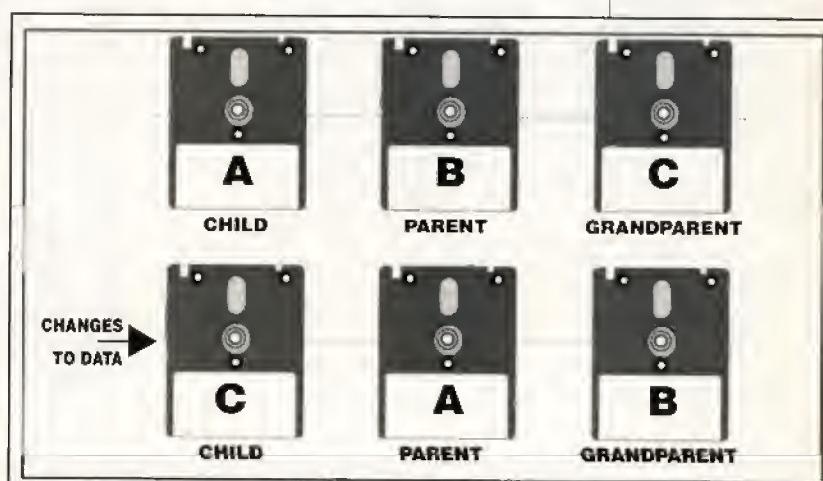
The most difficult cases are those caused by disc drive errors, mistakes made during formatting or gross corruption over extensive areas of the disc surface caused by magnets, X-rays and so on. Even here, depending on the damage, there is often a surprising amount of information left on the disc, but recovery is like piecing together electronic confetti!

If the worst happens and you do have a problem, make a copy of the disc if possible before you attempt to work on it again; you might erase or damage hidden but valuable information on the disc. If you have erased a file accidentally, do *not* use the disc to save any more files on. If in doubt, don't dabble: call an expert.

Corrupted discs can be sent with a spare disc in the same format in a padded bag with return postage and a note of the error message to: Dave Smith, 41 Tutsham Way, Paddock Wood, Kent TN12 6UA, tel. 089283 5974 (it's a good idea to phone first). Use a plastic disc box and a padded bag. But remember, prevention is better! ■

DISC DOCTOR

Dave Smith gives a few hints on stamping out disc corruption



The grandparent-parent-child system of backing up. The child holds the most recent version, the parent the previous version, the grandparent the one before that. When changes are made to the file, the new version is put on the grandparent; this becomes the new child. The old child becomes the new parent, the old parent the new grandparent. For each subsequent version, the cycle repeats.



How to beat corruption

- a) Always, always, always 'back up', ie. keep copies of your discs. They wear out eventually but are cheap in comparison with your time.
- b) If you suspect a faulty machine get it checked out and don't use it in the meantime.
- c) When you format or reformat a disc, use DISKIT to VERIFY it. This takes a few seconds extra but may avoid problems later.
- d) Try to get a mains smoothing device, or at least try to avoid using a ring main with other devices on it which switch on and off – fridges,

- freezers etc. – or which carry heavy loads.
- e) Always put the write-protect tabs on the disc if you don't intend to alter anything. Take care to swap discs properly when copying.
- f) Never switch the machine on or off with a disc in a drive. This can cause a power surge.
- g) Avoid magnetic fields (telephones, speakers, children's toys, magnets or the odd X ray machine you have lying around in your study)
- h) Avoid static – earth yourself before you touch the PCW. Get an antistatic mat, wear clothes

- containing less nylon and keep a pot of water in the room but away from the machine.
- i) Physical damage to the discs can be caused by touching the brown surface, moving the computer while the discs are in use, or by extracting the disc while it is being accessed. Wait until the red light has stopped and you can hear the disc motor stop spinning.
- j) Don't leave the discs around for long periods. The screen has strong magnetic fields. Recycle them frequently, reformatting and verifying.

LISTINGS

Eat what you watch! A type-in Pacman... and more...

PACMAN

by P. Venton

Everyone and their friend has played Pacman: in the arcades, on the ZX81... now you can do it in Mallard Basic on the PCW. However, there is always room for a new version of an old idea. This particularly elegant version uses only the cursor positioning strings

to perform its magic and yet still achieves enough speed to be playable.

The Q and A keys control vertical motion while the K and L keys change to horizontal. The Pacman character moves continuously once started and if allowed to leave the playing window simply re-appears from the other side. You eat all the blobs in the fastest time possible.

By the way Mr Venton, I've lost your address. Give me a ring I'll send a cheque. ■



```

10 esc$=CHR$(27):be1$=CHR$(7):RANDOMIZE 8:c1ns$=esc$+"F":tncs$!+"H"
20 cons$=esc$+"e":cnf$=esc$+"f"
30 ston$=esc$+"1":stof$=esc$+"0"
40 home$=esc$+"R":move$=esc$+"Y":DIM pills(75,20)
50 PRINT clss$:PRINT cof$
60 PRINT TAB(38); "Movement Keys: ":PRINT
70 PRINT TAB(10); "Up :Q"; TAB(60); "Left :K"
80 PRINT TAB(10); "Down :A"; TAB(60); "Right :L"
90 PRINT:PRINT TAB(25); "Press any key to begin the game"
100 ,key$=INKEY$: IF key$="" THEN 100
110 PRINT clss$:GOSUB 470
120 FOR i=1 TO 10
130 b=INT(RND(1)*16)+4:a=INT(RND(1)*65)+10
140 IF pills(a,b)<>1 THEN pills(a,b)=1:ELSE GOTO 130
150 PRINT move$;CHR$(32+b);CHR$(32+a);CHR$(188);
160 NEXT
170 x=INT(RND(1)*65)+10:y=INT(RND(1)*16)+4:IF pills(x,y)=1 THEN 170
180 PRINT move$;CHR$(32+y);CHR$(32+x);C";

```

1A72
09F3
0Bb2
1629
0C0B
1502
11CD
1479
1D8D
111D
0B11
06F5
1059
179E
1331
0424
1C9B
11D7

①

```

190 a=x:b=y
200 PRINT home$;"Hit a key!"
210 key$=INKEY$: IF key$="" THEN 210
220 time=0:count=0:key$="":dis$=""
230 WHILE count<>10
240 time=time+1:IF a=x AND b=y THEN GOTO 280
250 PRINT move$;CHR$(32+b);CHR$(32+a);"; "
260 PRINT move$;CHR$(32+y);CHR$(32+x);";C";
270 a=x:b=y
280 key$=INKEY$: IF key$<>"" THEN dis$=key$
290 IF dis$="q" OR dis$="Q" THEN y=y-1:IF y<3 THEN y=20
300 IF dis$="a" OR dis$="A" THEN y=y+1:IF y>20 THEN y=3
310 IF dis$="k" OR dis$="K" THEN x=x-1:IF x<10 THEN x=75
320 IF dis$="l" OR dis$="L" THEN x=x+1:IF x>75 THEN x=10
330 IF pills(a,b)=1 THEN count=count+1:pills(a,b)=0:PRINT be1$
340 PRINT home$;"Time : ";time:WEND
350 PRINT clss$:PRINT TAB(37); "... Maze completed...":PRINT:PRINT
360 PRINT TAB(17); "Time taken : ";time;". Your reflexes are :-":PRINT:PRINT

```

0521
0640
1127
0K92
09AE
1100
1041
11D3
051D
144K
1725
15D3
169F
16A1
1DRF
10DE
2371
25AA

②

```

370 IF time>=200 AND time<=280 THEN PRINT TAB(44); "FAIR"
380 IF time>180 AND time<200 THEN PRINT TAB(40); "ABOVE AVERAGE"
390 IF time>160 AND time <=180 THEN PRINT TAB(40); "PRETTY SHARP"
400 IF time<=160 AND time>155 THEN PRINT TAB(40); "VERY IMPRESSIVE"
410 IF time<=155 THEN PRINT TAB(21); "RED HOT (Did you write this game?)"
420 IF time>280 THEN PRINT TAB(28); "SLOW (Watch out crossing the street!)"
430 PRINT:PRINT:PRINT:PRINT
440 PRINT TAB(32);inon$;"; Press any key to proceed ";inofs
450 key$=INKEY$: IF key$="" THEN 450: ELSE 50
460 FOR x=1 TO 500:NEXT:RETURN
470 PRINT move$;CHR$(32+2);CHR$(32+9);
480 PRINT CHR$(134);
490 FOR x=1 TO 66:PRINT CHR$(138);:NEXT:PRINT CHR$(140)
500 FOR x=3 TO 20
510 PRINT move$;CHR$(32+x);CHR$(32+9);CHR$(133);SPC(66);CHR$(133)
520 PRINT SPC(9);CHR$(131);:NEXT
530 FOR x=1 TO 66:PRINT CHR$(138);:NEXT:PRINT CHR$(137):RETURN

```

1900
1D4L
1250
2060
21CD
244A
1247
1D94
14D7
0F90
0F4E
07F2
1914
0712
1A38
0E08
1F18

③

CHECK 2 - THE SEQUEL

by Adrian Wilkins &
Peter Crane

Due to the large number of complaints concerning the Checksum program, to wit, that it doesn't actually work properly, here is the revised version. You will notice that the mistake lay in the line now numbered 200; well spotted, Mr Crane, and a double issue of Brownie points.

All future listings will be printed with checksums from the revised version to be known henceforth as CHECK2.BAS to distinguish it from the original.

What it does is produce a number for each line of a listing you're typing in based on the characters you've typed. If it corresponds with the check numbers at the right of our listings as printed in the magazine, you know that line is

```

10 LPRINT CHR$(27)+"m1"
20 LPRINT CHR$(27)+"E"
30 LPRINT CHR$(27)+"R"+CHR$(0)
40 LPRINT CHR$(27)+"d"
50 PRINT"Do you want pica": WHILE i$="" : i$=INKEY$: WEND
60 IF UPPERS(i$)="Y" THEN LPRINT CHR$(27)+"M"
70 INPUT "Program name ", prog$
80 IF INSTR(prog$, ".") = 0 THEN prog$=prog$+".bas"
90 IF FIND$(prog$)="" THEN PRINT "Program not found" : PRINT : GOTO 70
100 OPEN "I", 1, prog$
110 WHILE NOT EOF(1)
120 LINE INPUT #1,z$
130 y$=UPPER$(z$)

```

093E
08A5
0B43
08A3
1C53
12DF
0F2D
14E4
2215
071C
092B
08AA
05FB

```

140 check% = 0 : j% = 0
150 FOR i% = 1 TO LEN(y$)
160 y% = ASC(MIDS(y$, i%, 1)) : IF y% = 32 GOTO 210
170 IF y% <> &HFC GOTO 190
180 PRINT "Save it in ASCII" : END
190 j% = j% + 1
200 check% = check% + (y%-32) * (j% MOD 7 + 1)
210 NEXT
220 LPRINT z$; TAB(76); HEX$(check%, 4)
230 WEND
240 CLOSE 1 : LPRINT CHR$(18); CHR$(12);
250 END

```

06BD
09BE
106F
0A6F
107B
0301
0DEF
0417
0F88
03F4
10B9
036C

How to type in a listing

Load up Mallard BASIC - to do that, insert your CP/M disc, reset the machine and at the A> prompt type BASIC[RETURN]. Now you see the 'OK' prompt. Just type in the lines of the listing exactly as they are printed on the page (but not the numbers on the extreme right). Type LIST at any time to print out your typing so far to the screen; if you want a printout to pore over, type LLIST.

Mistakes made before you press RETURN can be corrected with the DEL keys, otherwise you have to use the line editor. Suppose you've made a mistake in line 100; type EDIT 100 and then you can use the cursor keys and DEL keys to correct it. Press RETURN when the line is OK. To delete a line, type its number only and press RETURN.

When you've finished, save the program to a disc by the command SAVE "FRED" (or any other suitable name of eight letters or less). To run the program, type RUN.

Programs rarely run first time, but when BASIC encounters a mistake it tells you where it is. 'Syntax Error in line 60' means a mistake in that line (though the actual typing error may have occurred in a previous line, causing problems in this one). Other error messages can often occur too. Use the EDIT command to correct it.

You can rerun the program another day by loading BASIC up as before and, with the disc on which you saved the program in the drive, typing LOAD "FRED" and then RUN.

the listings to be checked in ASCII format: instead of just typing SAVE "PROG.BAS" you type SAVE "PROG.BAS", A. Programs saved as ASCII work just the same as normal programs and can still be listed, printed out and so on.

If you want your checksummed version to appear on screen instead of on the printer, change the LPRINT in line 220 to PRINT. ■

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PLEASE NOTE: EASY LABELLER is a purpose designed program and NOT a database adaption. The need to deal with disc files is NOT REQUIRED, THOUSANDS of satisfied customers, both experienced and first time users, have found EASY LABELLER invaluable for producing MAILING LISTS, TICKETS, CONTINUOUS ENVELOPE ADDRESSING as well as a QUICK and EASY filing system.

MEMTYPE

by M. J. Ellison

This handy utility is the equivalent of 'Direct Printing' in LocoScript, but it works from within BASIC. It's for those times when you're in BASIC and want to write down that phone number from the TV advert or jot down the idea you've just had for a blockbuster novel. The problem is that you don't have a pen and paper handy because of your paperless office and it's a bit of a fag to go back to CP/M to get a paper copy of the message.

With this utility on your disc all you have to do is type RUN "MEMTYPE" and the cursor is replaced with a flashing underline character. Type your text; the cursor can be moved back over existing text to overwrite it. [RETURN] sends your line to the printer and waits for a new one.

Stop to exit; you're still in BASIC and can continue from where you left off.

Good programs needed!

We're looking for well written programs of up to 50 or so lines which we can print in these listings pages each month. Of course, since we can fit more of the shorter listings in, and they're easier to type, the longer ones have to be really special, and the ones over 50 lines have to be mind-blowing!

We're only interested in BASIC or maybe Logo listings... at the moment, anyway.

If you can program you could earn hard cash and instant fame by having your program printed in 8000 Plus. Give instructions on an accompanying sheet for using the program, and if there are any useful modifications that readers can make by simple edits to customise the program, mention those too.

To submit a listing you must supply:

- 1) A printout of the listing;
- 2) A disc on which it is saved;
- 3) A stamped addressed padded bag for its eventual return;
- 4) An explanation of what it does, why it's useful and how to use it;
- 5) A signed statement confirming that the program is your own work and hasn't been submitted to anyone else – and hasn't been lifted from another source!

Send all this to Listings, 8000 Plus, Bath BA1 1EJ and allow up to 40 days for the return of your disc; we assess the listings in a batch once a month.

It's amazing how many programs submitted to us just don't work! When you've finished your chef d'oeuvre, get someone else to test it using only the documentation you plan to send, and assume we're not as bright as you are. If your stuff doesn't run properly there simply isn't the time for us to find out why!

Put your name and address on the outside of the disc itself – not just the case – and a copy of the documentation on the inside as an ASCII file. (Use the LocoScript 'Simple text file' option). This is the opposite of a paperless office, sometimes it gets knee deep in here...

And finally, upgrades to previously published work constructive criticisms and suggestions for improvements would be appreciated.

Over the coming months we hope to introduce a number of innovations to these pages; watch this space.

```

10 OPTION RUN: esc$=CHR$(27): syscurson$=esc$+"e": syscursoff$=esc$+"f" 2453
20 ulineon$=esc$+"r": ulineoff$=esc$+"u" 1296
25 cls$=esc$+"E"+esc$+"H": lmarg=1: rmarg=91 1224
30 DEF FNats$(x, y, a$)=esc$+"Y"+CHR$(31+y)+CHR$(31+x)+a$ 13F6
35 GOSUB 170: PRINT syscursoff$: cls$ 12FC
40 speed=70: count=INT(speed/2): toggle=0 1524
50 IF count=speed THEN GOSUB 230 1019
60 count=count+1: in$=INKEY$: IF in$="" GOTO 50 15DA
70 IF in$=CHR$(13) THEN GOSUB 160: GOTO 40: REM carriage return 1DC4
80 IF in$=CHR$(1) THEN GOSUB 200: GOTO 40: REM cursor left 1B12
90 IF in$=CHR$(6) THEN GOSUB 210: GOTO 40: REM cursor right 1B31
100 IF in$=CHR$(127) THEN GOSUB 220: GOTO 40:REM [<-del]
110 IF in$=CHR$(3) GOTO 150: REM press [stop] to end 1A07
120 IF point=rmarg-10 THEN PRINT CHR$(7) 1351
130 IF point=rmarg THEN PRINT CHR$(7) ELSE GOSUB 190: point=point+1 22ED
140 GOTO 40: REM ***** MEMTYPE.BAS by Mike Ellison *****
150 GOSUB 250: PRINT syscurson$: END: REM bye bye 19A6
160 GOSUB 250: LPRINT line$: REM car ret & printout 1964

```

1

```

170 point=lmarg: line$=SPACE$(rmarg-1): PRINT FNats$(lmarg, 5, line$) 2006
175 RETURN 0522
180 point=point-1: in$=CHR$(32): GOSUB 190: RETURN: REM rubout 1FFD
190 MID$(line$, point, 1)=in$: GOSUB 250: RETURN: REM add new character 22F4
200 IF point=lmarg THEN PRINT CHR$(7): RETURN: ELSE GOSUB 250: point=point-1 2795
205 RETURN 050F
210 IF point=rmarg THEN PRINT CHR$(7): RETURN: ELSE GOSUB 250: point=point+1 27B6
215 RETURN 0512
220 IF point=lmarg THEN PRINT CHR$(7): RETURN: ELSE GOSUB 250: GOSUB 180 23C5
225 RETURN 0515
230 IF toggle=1 GOTO 250 0A5F
235 PRINT FNats$(point, 5, ulineon$+MID$(line$, point, 1)+ulineoff$) 20D4
240 toggle=1: count=0: RETURN 0EAB
250 PRINT FNats$(point, 5, MID$(line$, point, 1)): toggle=0: count=0: RETURN 2275

```

2

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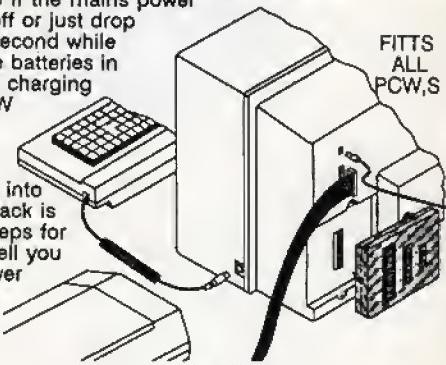
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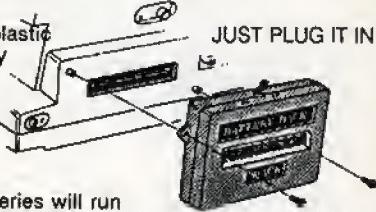
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EX9512 Also adds new commands to Mallard Basic in a similar manner as EXBASIC but it has been re-written to run on the PCW9512. For the un-initiated this means being able to use simple commands like clear screen, load screen from disc plot, draw ect. EX9512 Makes your basic programs come to life!

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Time adds up

You can use LocoMail to add up times in minutes and seconds for you, saving a lot of tedious calculation. The method here totals times inserted in a document, and is very useful if you need to add up times taken for each part of, say, a play script or an outline for a meeting.

There are three units which you type in to the document as you go along. Put unit A at the very beginning. It sets up a counter, which you can set at zero, if you're starting from scratch, or at any other duration in minutes and seconds if you're continuing from somewhere else. Then paste unit B wherever a timing is to be inserted. At the very end put unit C.

Unit A:

```
(+Mail)mins=?#:  
secs=?#(-Mail)  
  
Unit B:  
(+Mail)min=?#sec?#(-Mail)  
(+Mail)min(-Mail)m  
(+Mail)sec(-Mail)s  
(+Mail)mins=[mins+min]:secs=  
[secs+sec](-Mail)[RETURN]  
  
Unit C:  
(+Mail)secs=[[mins*60]+secs]  
:mins=0:minloop="(+Mail)  
[RETURN]  
#secs>=60:<:mins=[mins+1]:fi  
nish=1:secs=[secs-60]:><:
```

A: group 0/TIMES . Editing text.
Layout 1 F112 LSL CR+0 LF6 Printer idle, Using A
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Opt
(+Mail)mins=?#secs=?#(-Mail)
Timing for play 'The Bath Soap'
Time + + Scene
(+Mail)min=?#sec?#(-Mail)(+Mail)min(-Mail)m (+Mail)sec(-Mail)s +
(+Mail)mins=[mins+min]:secs=[secs+sec](-Mail)++Andy meeting the
Norwegians in Hatchetts.
(+Mail)min=?#sec?#(-Mail)(+Mail)min(-Mail)m (+Mail)sec(-Mail)s +
(+Mail)mins=[mins+min]:secs=[secs+sec](-Mail)++At the night club,
the fight. Bob goes home early and misses it all.
(+Mail)min=?#sec?#(-Mail)(+Mail)min(-Mail)m (+Mail)sec(-Mail)s +
(+Mail)mins=[mins+min]:secs=[secs+sec](-Mail)++Next morning. Ollie
wakes up and cannot remember what happened.
(+Mail)secs=[mins*60]+secs:mins=?#minloop="(+Mail)
secs>=60:<:mins=[mins+1]:finish=1:secs=[secs-60]:><:if mins=0:
finish=0:>[RETURN]

A: group 0/TIMES . Fill document.
Layout 1 F112 LSL CR+0 LF6 Printer idle, Using A
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Opt
Timing for play 'The Bath Soap'
Time Scene
2 n 45 s Andy meeting the Norwegians in Hatchetts.
4 n 50 s At the night club. The fight. Bob goes home early
and misses it all.
1 n 20 s Next morning. Ollie wakes up and cannot remember
what happened.

Total time: 8 mins 55 secs
The document filled

TIPOFFS

Donnerwetter! Zut alors! Ah so!

In der Locoscriptdokument grosse probleme? Est-ce qu'on ne comprend pas le LocoMail? CP/M de wa komatteru no? Don't just give up and say it's all Greek and double Dutch, come to Tipoffs, the best plain English advice pages in anybody's language.

If you have a *piece de resistance* in Locoscript, a way to say *sayonara* to that problem in Mini Office, or a bit of *Vorsprung durch Technik* in CP/M, tell us – the best win £30, three hundred francs, ninety marks or seven thousand yen!

The money this month goes to Colin Dennison of Brighton for his Locoscript collection, and John Blandford of St Albans for his LocoMail price lists.

```
finish=0:>[RETURN]  
(-Mail)[RETURN]  
#minloop@finish(-Mail)  
[RETURN]  
Total time: (+Mail)mins  
(-Mail)m  
(+Mail)#secs<10:<(-Mail)  
0(+Mail)secs(-Mail)s  
(+Mail)><:secs(-Mail)"
```

When you've finished, use FILL mode. You go through the document inserting timings at each place where unit B prompts you, and you'll get a total at the end (with minutes and seconds counted up correctly for you). You can save the filled script in the usual way, and make adjustments and alterations to the insets in subsequent fills.

If you deal with hours and minutes – for timesheets perhaps – you can use exactly the same routine as above, but replacing 'm' by 'h', 's' by 'm', 'min' by 'hr' and

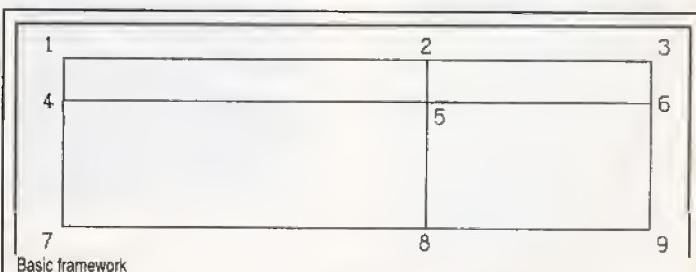
'sec' by 'min' etc. Of course you can use the [EXCHANGE] facility to make the changes.

Malcolm Ruthven
London

Boxing match

One deficiency of Locoscript has always been its inability to print out boxed tables of figures. However, version 2.12, with its ability to redesign up to 16 characters if you buy the add-on program from Locomotive called Locochar, remedies this. Here are some useful patterns to create which make box drawing easy.

In a typical table as shown in Diagram A there are nine different kinds of junction but they are all derived from one basic cross pattern (which is junction 5) by deleting either one or two arms of the cross. To design the characters



TIPOFFS

you need, all you have to do is follow the instructions to get Locochar up and running and in due course the grid patterns for Locochar [0] will appear. Ignore these and press 5 to get the patterns for Locochar [5] on the screen. Delete all three patterns by pressing the 'delete right' key and then enter the patterns shown in Diagram B to produce Locochar character [5] on the screen. Copy

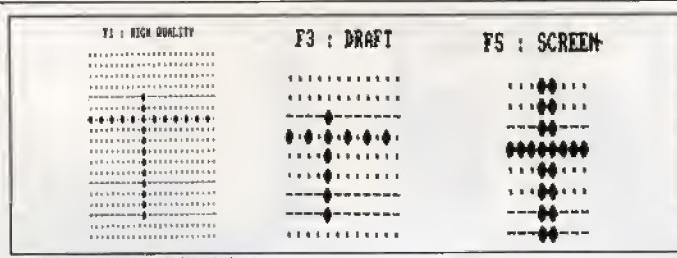


Diagram B Basic pattern for tabulator 1

them to the Scratchpad using CUT. Now work through Locochar characters [1] to [4] and [6] to [9] one at a time by pressing the appropriate number. When the grid patterns of the old character have appeared press COPY to replace them with the basic cross patterns. From each pattern delete the parts of the cross that are not required for the correspondingly numbered junction and, when you have done

Tetrishhh!

One of the problems with Tetris, apart from its addictiveness, is that annoying beeping that accompanies the drop of every brick. However, with a bit of ingenuity you can silence it.

The idea is to play Tetris, then copy the four files (blank), A, B, and C (yes, one file has a name consisting of blanks!) from your Tetris master disc to a new disc. Then you rename the file with a blank name to TETRIS.COM using LocoScript, then use SID to change the byte at 0CEF in the file C to 3A. Sounds complicated but it's easy: here's what to do in detail.

Load CP/M and play a game of Tetris. Quit the game as usual and at the A> prompt type DIR –

meaning your Tetris disc. You see the four files blank, A, B and C being copied to the memory.

Next insert a freshly formatted disc in the A drive and type A>M:*. [RETURN]. Those four files are now copied from the memory to the new blank disc.

When PIP has finished its stuff, remove the disc in A, which will be your Tetris copy disc, press [SHIFT][EXTRA][EXIT] to reset the machine and insert your LocoScript startup disc. When the disc manager appears, insert the Tetris copy disc, press [F7] to change discs ([F1] in LocoScript 1) and use [F3] ([F5] in Loco 1) to rename the file which was called blank (in Loco 1 its name may now be a string of capital thetas). Give the new name as



Renaming that blank file in LocoScript

TETRIS.COM.

Remove the Tetris copy disc, press [SHIFT][EXTRA][EXIT] and insert the CP/M startup disc. At the A> prompt, insert side 3 of the systems discs and type SID[RETURN]. When the # appears insert the Tetris copy disc in the drive and type RA:C[RETURN]. After a bit some junk appears which you can blissfully ignore: just type SOCEF[RETURN] (the second character is a zero) and a 28 should appear. Type 3A[RETURN], followed by a full stop when the next number shows, followed by WA:C after the #. After a bit you see a message saying some records have been written. Press [STOP] to get back to CP/M.

Your Tetris copy disc now plays Tetris as normal whenever you type TETRIS – but now,

mercifully, in complete silence!

Alan Dennis Hinckley

Tipoffs editor adds hastily: If you start making copies of Tetris to run on machines other than your own it's illegal, and distributors Mirrordsoft have lots more money than you or me to pay for lawyers, so don't say we haven't warned you!

```
A>sid
CP/M 3 SID - Version 3.0
ra:c
NEXT MS2E PC END
C700 C700 0100 DAFF
#s0cef
CEF 28 3a
FCFO 01 .
#wa:c
018Ch record(s) written.
#tC
A>
```

Using SID



Before (noisy)

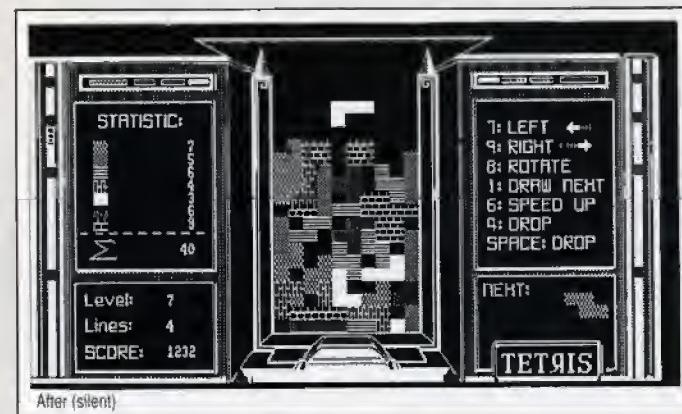
you'll see that there are now four files called A, B, C and a blank name. (This is necessary, as before you play there is only a file called TETRIS.COM – don't ask how the directory apparently changes in the meantime!)

On an 8512, first put side 2 of your CP/M discs in the B drive. On either an 8256 or 8512 now type B:PIP[RETURN]; on an 8256, you'll be prompted to 'put the disc for B: in the drive and press any key'. In this case side 2 of your CP/M systems discs is the 'disc for B:'.

At the asterisk prompt type M:=A:*. [RETURN] – on an 8256 you'll be prompted to 'put the disc for A: into the drive'.

```
Once more? (Y/N)n
A>dir a;
A:   : B      : C
A>b:PIP
CP/M 3 PIP VERSION 3.0
**=a:*,*
COPYING -
B
C
A
**=a:*,*
COPYING -
B
C
A
*
```

Using PIP to copy those files



After (silent)

all three, move on to the next character. This technique guarantees accurate alignment both vertically and horizontally.

For horizontal lines, the dash ([ALT] hyphen) lines up exactly to make a continuous horizontal line and the unshifted hyphen produces a broken line if you need it.

That leaves you with six Locochar characters [A] to [F]. You can make these extra characters to embellish the original boxes to your taste – finely dotted lines or double lines for example. Finally a few words of advice.

1. Use half-line spacing. When using Pitch 12 this makes the table on screen look twice as high, compared with its width, as it will eventually print out. (Other pitches have other ratios).

2. Cancel any carriage returns extra before you start – setting up a stock layout specifically for tables is well worth the effort and enables you to avoid the worst hazards.

3. Almost every other (half-) line of a table consists entirely of verticals at predetermined distances apart – use [COPY] and [PASTE].

4. Pitch 10 and Pitch 12 are best. Don't try mixing Proportional Spacing with tabular work – a recipe for disaster!

SC Beer
Ilkeston, Derbyshire

this also has the effect of disabling STOP, thus preventing 'break-in'.

The whole process of scanning the keyboard and interpreting the key that is pressed can also be made more efficient by replacing the simple line CS=INKEY\$ by CS="" : WHILE CS="" : CS=INKEY\$: WEND which makes the program wait for the next key to be pressed, so that it doesn't repeatedly loop unnecessarily through the tests that follow.

For example, if you want to do something (say GOSUB 1000) when the right-hand arrow key is pressed, you would have a line after the one above containing something like IF CS=CHR\$(6) THEN GOSUB 1000.

Lawrence Simons
London

Multiplan organisations

Multiplan is a powerful spreadsheet but is let down by the obscurity of its handbook. For those valiant souls who are still struggling the following two tips may be of help.

Printing in condensed print: Using condensed print will allow 10-12 columns of a spreadsheet to be printed across the width of an A4 sheet. To convert the printer to condensed print call up PRINT –

convenient 'named' line/column of the sheet; then enter the new Initial Conditions and run the model and then 'Save'. (The two functions are combined if only 'Save' is used). Thirdly, call up EXTERNAL COPY and enter data as follows:- from sheet: enter name and current spreadsheet,

name: enter name of result line/column
to: enter cell where results line/column is to start.

Alternatively, a set of results can be compiled by using the printer to print out only the 'named' line/column at the end of every run.

P A Roberts
Barnstable

NewWord theme

Here's something for users of WordStar/NewWord which gets a more legible print style than normal. The default (ie. usual) settings for pitch and right margin are .cw12 (10) and column 65. With this in the left margin:

.cw14
.rm56

the printed lettering from the PCW printer comes out stretched and thus appears to be slightly darker and more defined due to it being a little thicker.

R R Mann
Grampian

give each price reference number corresponding with the sequential listing of the prices across and then down the original catalogue pages – for example, the simple price list in figure 1. This price list can be converted into a merge document by placing this LocoMail unit called X at the top of the first page:

(+Mail)X" (+Mail)PRICE:

BOXALL SUPPLIES LTD

Type	1 box	2 boxes	3 boxes
A1	16.90	15.52	15.21
A2	17.47	16.14	15.83
A3	26.27	24.09	23.65

Fig. 1 Original price list

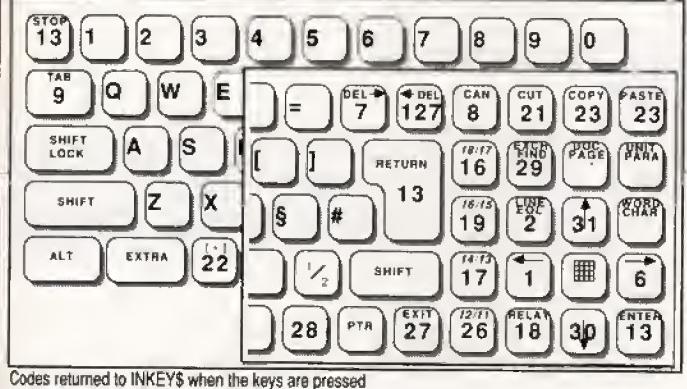
Fig. 1

\$+(-Mail)" (-Mail)
All the prices are then replaced by the LocoMail perform instruction:
(+Mail)%X(-Mail)

At all the places where a price would normally appear, the PASTE facility comes in useful here.

X inserts a price and moves on to the next price in the data file. The instruction %X says 'do the program X' at this point'.

Figure 2 shows the converted document. The LocoMail data file to go with this merge-document is



Codes returned to INKEY\$ when the keys are pressed

Key facts

It is difficult to understand the widespread practice in BASIC of using the W-A-S-Z group of keys for UP-LEFT-RIGHT-DOWN when the PCW has proper arrow keys! These keys all return unique codes when the keyboard is scanned using INKEY\$ and almost all of the 'LocoScript' keys can be used in this way if you know the codes they return. They're listed above.

Certain of these codes (specifically, those for the 'function keys' and the STOP key) will only be returned by INKEY\$ if the command OPTION RUN is included at the beginning of the program;

OPTIONS and enter the following formula in the set up area:- ^Q139 (where ^ is [EXTRA]U) Also set print margins with print width of 139.

Results on a 'what if' model: If the spreadsheet has been used for a 'what if' model it's useful to be able to record the results of several runs on the same spreadsheet. This can't be achieved by 'Copying' the results to another part of the spreadsheet as the formulae are also copied and the previous run's results are replaced by the current result. However if the External COPY facility is used only the values are copied.

First set up a copy of the 'initial conditions' and the 'results' on to a

```
(+Mail)XE(+Mail)23C1E(-Mail)"  
(-Mail)(+UL)BOXALL SUPPLIES LTD (-UL)  
(+UL)Type(-UL)+(*UL)1 box(-UL)+(*UL)2 boxes(-UL)+(*UL)3 boxes(-UL)  
A1+ (+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)  
A2+ (+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)  
A3+ (+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)(+Mail)
```

Fig. 2

The fame of prices

Even using a word-processor, updating figures in a long document – eg. prices in a catalogue can be a time-consuming business. You'd normally keep all the pages of a price catalogue as a text file, making any changes to the prices by altering them one at a time wherever they occur in the document, involving laborious use of the cursor keys.

Using LocoMail, it's much easier. The basic method is to remove all the prices from the price list file pages and keep them in a data file instead. (The same method here holds for other similar things which need figures to be revised – exam result lists for students etc). Obviously prices in the data file need to be referenced in some way; the easiest being to

:SYSTEM /PLISTDAT.FML Edit
Layout 1 File LS1 CR
1=Actions f2=Layout f3

REFERENCE/PRICE
p1/16.90\$
p2/15.52\$
p3/15.21\$
p4/17.47\$
p5/16.14\$
p6/15.83\$
p7/26.27\$
p8/24.09\$
p9/23.65\$

(+Mail)XE(+Mail)

Fig. 3

shown in figure 3.

When the PRICE LIST is merged with the data file, the prices are automatically inserted into the correct places and the price list can be printed. Using this method, price lists running to many pages can be handled as one

TIPOFFS



Fig. 4

document. Alterations to the prices are easily made directly into the data file, the prices are automatically inserted into the correct places and the price list can be printed. By merging again, a new price list is produced.

You can do much more. For example you can increase all prices by a fixed percentage. One way of doing this is to create a data-change merge document that will produce new data files with all the prices increased by a rate determined when it is run.

The data-change merge document that will do this is shown in figure 4. This idea can be taken a stage further to allow only



Fig. 5

selected prices to be increased. To achieve this, the structure of the price data file has to contain a further item-name which is called STATUS in figure 5. The status of an item is Y if the price is to be changed or N if it is not.

The CHANGE-PRICE loop program now has to contain conditional clauses as in figure 6 so as to increase some prices and leave the others unchanged.

Further enhancements are possible, e.g. by developing the range of status codes, some items could be increased by one percentage and others by another.

John Blandford
Sandridge, St Albans

to length, using its instant word counter. The problem comes when you want to print it out – Mini Office isn't as reliable as LocoScript.

Well, when you've finished writing a document in Mini Office, just save it as normal and start up LocoScript. Make a new document, and 'Insert text' from [F1] ([F7] in LocoScript 1). The original text comes in (you just delete the first line of junk which appears) and you can now go through adding Loco's bold, italics etc. To make fancy layouts, use LocoFont – the best of both worlds!

John Walker
Great Barr, Birmingham

Loco font

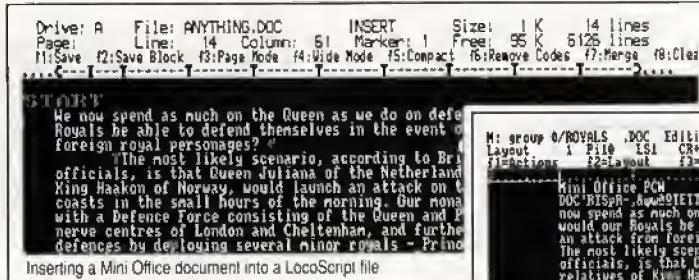
Users of LocoFont may be disappointed to find that, if they make new MATRIX.#xx files to hold



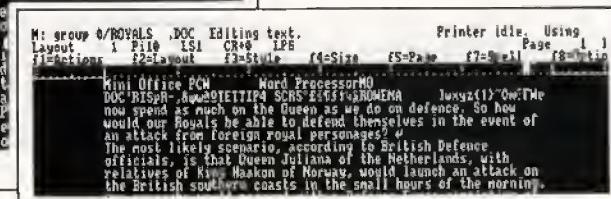
Fig. 5

Mini Script

Many Mini Office owners use its word processor for writing articles



Inserting a Mini Office document into a LocoScript file



notes in TEMPLATE.STD. You will then get a reminder each time you create a new document to your usual letter template.

Play it straight

Avoid proportional spacing, and therefore SuperType or LocoFont if your document has tables which need to be straight.

Nice accent

If writing in a foreign language, store accented letters as phrases: [PASTE]N for a n-tilde is easier than remembering the keystrokes to get a tilde as normal.

Addressage

Address labels are most easily printed on long continuous rolls of sticky paper. Ignore the perforations; if any, cut with scissors.

Colin Dennison
Brighton

sets of characters designed with Locochar, there is apparently no way to set up a document, or the printer, to use the new files.

Only 10 character sets can be displayed at a time. Your new character set file can't be selected or displayed on the list, because the other sets have already occupied all the available places.

So what is to be done? First, make room in the list by deleting some less-frequently used

MATRIX.#xx files, from both the M drive and your startup disc. Make sure also that the printer is not set up to use any of these (if it is, there will be a tick against the character set, when you go into the printer control screen with [PTR], press [F5] and select the character set option). Then press [F6] from the disc manager screen, select 'for character set' and you will see that the files you have decided to delete now have a ? against them. Highlight each in turn with the cursor, press [CUT], and hey, presto! it disappears from the screen (and from the setting file).

Now there should be room to display your new MATRIX.#xx file, when it has been copied to group 0 on your start of day disc. Add it to the settings file, via the 'write to disc in drive A' option when you leave the settings menu.

Cyril Coffin
New Malden

Loadsa Loco tips

Seven neat tips from Colin Dennison for all LocoScript users.

Printing and editing

You can't edit a document while it is being printed out. So before printing a large LocoScript

document, copy into M drive and print it from there, then go back to editing the original on disc. Errors can be amended in this version while the copy on M prints out.

Cameo part

To print part of a page, also

preferably in M, make the part into a complete page of its own by putting [ALT][RETURN] at the beginning and end of the part to be printed. Then choose 'Print some pages' from the print menu and give the appropriate page as the only one to be printed.

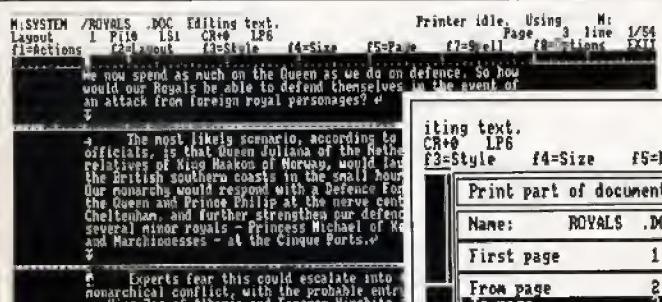
Let's split

To split a long document in two, type in \$ near the middle. Then

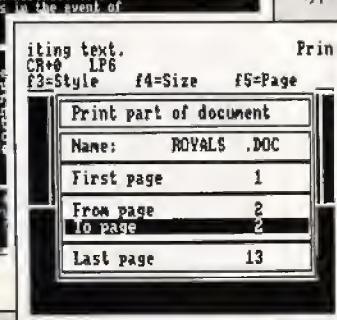
copy. In the first copy, [FIND]\$ [CUT][DOC][CUT]. In the second copy, [CUT][FIND]\$[CUT]. If the document is likely to contain \$, make your marking entry \$\$\$. Delete afterwards.

Remind me to ermm...

Make reminders or diary



Marking out the text to be printed as a separate page, then printing just that page





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Allen Court, Dorking, Surrey RH4 1YL
Phone (0306) 740606 - 24 hours

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Postcode: _____	<input type="checkbox"/> Charge my Access/Visa card
Signature: _____	<table border="1" style="float: right; width: 100px; height: 20px;"></table>



GOOD SOFTWARE



These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word Processors (including Desk Top Publishers), Accounts/Payroll packages and Utilities. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer

cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a ▲ by them, Minuses a ▼. Those we think are particularly noteworthy have a corner flash. Have fun window shopping!

WORD PROCESSORS

LocoScript already comes bundled with its own word processor, so you might not think of buying another one as a priority. In fact, whatever you may have read in some magazines, LocoScript is a pretty good wordprocessor and you won't find many editing and layout functions it doesn't have. Its principal disadvantage was its slowness, but the release of Locoscript 2 has lessened that.

There are advantages to be had in changing. LocoScript cannot run from CP/M, and this may cause you trouble.

Many other word processors have a built-in 'mailmerger' program. This is a way of doing bulk mailshots; you store your address list in a data file, and write a letter with labelled gaps where you want the names and addresses to go. Then, when you print, the letter comes out once for each address, with the information in its correct place. Also, you often get a spelling checker thrown in free – look for one which allows its dictionary to be modified so you can include non-American spellings.

One thing's for sure, whatever word processor you buy it will be totally different to operate from LocoScript. The PCW keyboard is custom built to run it, and if you change you may have to get used to some arcane choices of keys to do even simple operations. Also, you won't be able (very easily) to use all the printer styles that you can in LocoScript, though there will be enough to get by with.

LOCOSCRIPT 2

£19.95 • Locomotive Software • 0306 740606

As bundled with new 9512, the new version of everyone's first word processor. If you know how LocoScript 1 works, you'll have minimal relearning to do, and it puts right (almost) all the defects of the old version at a rock bottom price. Greek and Cyrillic alphabets, and version 2.12 even lets you define up to sixteen characters of your own design.

PLUSES-MINUSES

- ▲ 'Find page' command makes moving around faster
- ▲ Superb range of foreign accents and symbols available
- ▲ Can now drive daisywheel and other printers
- ▲ Has DISKIT's formatting and copying built into it
- ▲ New 300-page manual
- ▼ Mailmerger and spelling checker not included
- ▼ Inconvenient for regular CP/M users
- ▼ Still no word counter!
- ▼ Still slow at Find, Exchange and scrolling

LOCOSPELL

£19.95 • Locomotive/Amsoft • 0306 740606

The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction. Reasonably fast, given LocoScript's inherent sloth.

PLUSES-MINUSES

- ▲ Runs totally from within LocoScript
- ▲ Can do small sections of a file
- ▲ Suggests alternatives for misspelt words
- ▲ Reformats the text as it makes corrections
- ▲ Provides the much-missed LocoScript word counter
- ▼ Can't remove spellings you don't like (eg -ize) from dictionary
- ▼ The manual gets bogged down sometimes
- ▼ Slow at scrolling the dictionary window

LOCOMAIL

£29.95 • Locomotive/Amsoft • 0306 740606

As a mailmerger for LocoScript, it's difficult to see how anything could be better than this. It runs directly from LocoScript, and can process any LocoScript commands. Has many advanced features and is highly recommended for all LocoScript users.

PLUSES-MINUSES

- ▲ You don't have to run it from CP/M
- ▲ Can print any LocoScript text formatting commands
- ▲ Can automatically rejustify paragraphs after insertion
- ▲ Can insert numeric calculations into letters
- ▲ Can read data from non-LocoScript (ie. ASCII) files
- ▲ Large manual, with example files on disc
- ▼ Need separate program to sort and filter addresses before a print run

PROSPELL

£29.95 • Arnor • 0733 239011

A stand-alone spell checker for use with almost any wordprocessor that runs on the PCWs. Reads LocoScript, WordStar and ASCII files, and allows you to make corrections directly, view the context, change the dictionary etc. Specify which machine when buying.

PLUSES-MINUSES

- ▲ Checks LocoScript and WordStar documents directly.
- ▲ Displays the context of a suspect word
- ▲ Can edit misspellings directly from Prospell
- ▲ Anagram and crossword solvers too
- ▼ Processes files of 15K or more in sections

PROTEXT/

POCKET PROTEXT

£59.95/£39.95 • Arnor • 0733 239011

The best CP/M wordprocessor. Very fast at moving around large files, and packed with features. Works with key combinations rather than menus, but uses LocoScript keys too. Comes complete with a good spelling checker, a lightning fast word counter and a very powerful mailmerger. 'Pocket Protext' is a stripped down version – essentially the same word processing features, but no spell checker or mailmerger, and lacking one or two incidental facilities like two column printing. Specify which machine you have when buying.

THE GOOD SOFTWARE FILE

WORD PROCESSORS • ACCOUNTS/PAYROLL

PLUSSES • MINUSES

- ▲ Complete with spelling checker/word counter
- ▲ Packed with features, eg. calculate facility, text editor for writing programs, 'print to screen' option etc.
- ▲ Lets you work with two documents at once
- ▲ You can do all of CP/M's functions without leaving Protext
- ▲ Very fast at moving around, doing exchanges and so on
- ▲ Extremely powerful and flexible mailmerger
- ▼ Forces you to learn another new set of control keys to use it
- ▼ Printing labels is virtually impossible
- ▼ Not as slick as LocoScript in its printer controls

MINI OFFICE

£29.95 • Database • 0625 878888

Good value

The word processor module of this five-program package is very fast and powerful, with a word counter, but suffers from a mass of bugs in file saving and printing (and proportionally spaced justified print takes ages); doesn't yet rival LocoScript or Protext.

PLUSSES • MINUSES

- ▲ Very fast and packed with features
- ▲ Unlimited headers and footers (eg. for footnotes)
- ▲ Can access printer directly (eg. for graphics)
- ▲ Screen can show exactly what will be printed out, italics, bold, pitch changes and all
- ▼ Currently riddled with bugs in printing, file handling, etc
- ▼ No phrases facility

TEMFDISC

£11.95 • Thurston Brown • 0395 68385

A set of ready made TEMPLATE.STOs made up of fancy patterns of exotic characters for you to embellish and use with LocoScript. Essentially for social/personal business use. You could win £10 from the suppliers by designing your own!

PLUSSES • MINUSES

- ▲ Using it tells you a lot about the intricacies of LocoScript
- ▲ You can get professional results easily
- ▼ You could write your own templates for free by reading the LocoScript manual

EASY LABELLER

£34.44 • M.A.S.S. • 0603 630768

Labelling program which stores your names and address list and will print out in label format selected items from it.

PLUSSES • MINUSES

- ▲ Useful options like printing out current date
- ▲ Good search facilities
- ▲ Range of printing options will fit most stationery
- ▼ Data needs an entire disc to itself
- ▼ Data entry is slowed by constant returning to main menu

NEWWORD

£69.00 • NewStar Software • 0277 220573

NewWord exploits the WordStar market by doing the same job better. It uses much the same key commands as WordStar and will even edit documents prepared under WordStar. Comes with a spelling checker, and the on-screen help is better than WordStar's, though the keystrokes are still as obscure

PLUSSES • MINUSES

- ▲ Does everything WordStar does, even reads WordStar files
- ▲ Spelling checker included
- ▲ Can un-erase words and lines
- ▲ Onscreen help better than WordStar's
- ▲ Full reformatting of text within mailmerger
- ▼ Weak on use of keypad and printer support
- ▼ Like WordStar, formatting troubles and obscure commands

LABEL PRINTER

£25.00 • Microdraw • 0622 685481

Very similar program to Easy Labeller if not quite as powerful. Usual features of a labeller and you can store comments with each label's data.

PLUSSES • MINUSES

- ▲ Menus simple – easy to get the program going
- ▲ Fast data entry
- ▲ Can store comments with each entry
- ▼ No import or export of data
- ▼ Data needs an entire disc to itself

ANSIBLEINDEX

£29.95 • Ansible Information • 0602 62576

Easy to use

Takes a LocoScript file and compiles an alphabetical index with page numbers from all the words marked. You mark the word to be indexed by using LocoScript's (+RV) code. The price includes the AnsibleCheck word counter/proof reader program too, which

is also available separately at £14.95.

PLUSSES • MINUSES

- ▲ LocoScript documents don't have to be converted to ASCII
- ▲ Can 'invert' phrases, eg. 'Smith, Fred' or 'Fred Smith'
- ▲ Can produce a single index over several different files
- ▼ Output index not LocoScript document – must convert it
- ▼ Can only index words appearing literally, not general topics

POCKET WORDSTAR

£49.95 • MicroPro/Davis Rubin • 0386 853610

For many business users, word processing means Word Star.

Almost everything you could need in a text processor is here and despite the title this 'Pocket' version has all the features of the original. Efficient and proven, but now showing its age and there are alternatives unless you are committed to WordStar already. £20 extra buys the De Luxe version with spell checker.

PLUSSES • MINUSES

- ▲ Probably the world's most widely used word-processor
- ▲ Documentation is complex but well-structured
- ▲ Includes a mail merge utility
- ▲ Keystroke commands fully described on on-screen menus
- ▲ You can save your own favourite customised version of the program
- ▼ Doesn't make full use of the PCW keyboard and printer
- ▼ Page and margin formatting commands are rather awkward to use

• ACCOUNTS • PAYROLL •

VITAL SAVINGS PROCESSOR

£29.90 • Vital Software • 0732 810330

Ideal for someone with a reasonable portfolio of stocks and shares. Program tells you your 'net worth' like a balance sheet. All information is elicited by question and response

PLUSSES • MINUSES

- ▲ Fast and efficient way of keeping track of share values
- ▼ Questions asked are not always relevant to your needs
- ▼ You have to be keen to do all the background research

VITAL INSURANCE PROCESSOR

£29.90 • Vital Software • 0732 810330

Will help you make an inventory of all your possessions and put a value on them. You divide your possessions into categories of your choice and make a systematic list, room by room.

PLUSSES • MINUSES

- ▲ Inventories completed room by room
- ▲ Detailed coverage of the policies themselves (eg. exclusions)
- ▲ Simple way of finding out what your property's worth
- ▼ Again, you have to be keen; it's time-consuming

VITAL INCOME PROCESSOR

£29.90 • Vital Software • 0732 810330

By typing in income and outgoings at regular intervals, the program will keep an accurate track of your money. It will store details of standing orders, say, and their frequency. It's a logical way to check if bills or cheques have been paid.

PLUSSES • MINUSES

- ▲ Allows budgeting
- ▲ All information is entered by on-screen prompts
- ▼ How various of the operations work is not clear
- ▼ Difficult getting the information you need from the manual

CHECK ACCOUNTS PROGRAM

£9.95 • M E Hodges • 03722 75053

A much more detailed accounts package, which allows you to make forecasts and keep track of the interest charged on your personal finances. Simple to use and the program also allows you to jump to any line in order to work out any interest accumulated in the meantime.

PLUSSES • MINUSES

- ▲ Easy to learn from demonstration files supplied
- ▲ Interesting use of time scales
- ▼ Relatively slow screen update
- ▼ Only useful for the really organized

DIGITA BUSINESS CONTROLLER

£69.95 • Digita International • 0395 45059

Not a full accounting system, but a very easy-to-use package with an excellent manual. Nominal ledger already set up and you can be up and running in minutes. No aged creditor/debtor lists can be produced, and problems with VAT handling – not really for

VAT businesses. For other small business it's very good value.

PLUSSES • MINUSES

- ▲ Delight to use with a very good manual
- ▲ You can get the system working in minutes
- ▲ Financial ratios can be included in reports
- ▼ VAT handling very cumbersome, suit non-VAT business
- ▼ No facility for producing aged debtors/creditors list

BOOK-KEEPING AND ACCOUNTS

£57.50 (£80.50 with stock control) • Manx Tapes • 0624 813071

Supplied with a very useful introductory demonstration disc, the program advocates a very traditional style of double-entry book-keeping. Program has high degree of flexibility.

PLUSSES • MINUSES

- ▲ Solid, traditional approach to double-entry book-keeping
- ▼ Program doesn't make full use of the PCW
- ▼ Screen prompts not always that helpful
- ▼ Written in BASIC, so prone to sluggishness

COMPACT ACCOUNTS

£199.99 • Compact Software Ltd • 0703 611214

Another very large integrated package supplied on several discs and consisting of sales, purchase and nominal ledger together with invoicing. The package is available on much larger micros, and since the formal in which data is produced is the same as on PCWs, the system is particularly suitable for users planning to upgrade their hardware at a later date.

PLUSSES • MINUSES

- ▲ Audit trails are an auditor's dream
- ▲ Data can be used in WordStar, Multiplan or SuperCalc 2
- ▲ Superb prepayment facility
- ▲ Can run a number of companies separately
- ▲ Easily transported to bigger computers
- ▼ Lots of disk swapping necessary
- ▼ Can be slow to use – it runs in Mallard Basic
- ▼ Quirks in cash allocation routine and account code system

ANAGRAM ACCOUNTS

£86.25 • Anagram Systems • 0403 59551

Sophisticated package for users familiar with accounts. Small debts (discounts, VAT) handled well but no permanent records are kept on disc; you must use its report printing options.

PLUSSES • MINUSES

- ▲ Invoice printing is easy
- ▲ Handles customer details efficiently
- ▼ Key presses are rather obscure
- ▼ Best to have some idea of accounts before using it

M.A.P. ACCOUNTS

£149.95 • MAP Systems • 061 624 5662/3

This is a very powerful package moved onto the PCW at a fraction of its cost on larger micros. The size makes it a little cumbersome to use, but apart from that there are very few significant problems. The integrated suite includes the same five modules as Camsoft, but they are supplied on four sides of disc, making it effectively impossible for the software to be run as an integrated system on an unexpanded 8256.

POOLSWINNER II

THE ULTIMATE POOLS PREDICTION PROGRAM



- MASSIVE DATABASE** Poolwinner is a sophisticated Pools prediction aid. It comes complete with the largest database available - 22000 matches over 10 years.
- PREDICTS** Not just SCOREDRAWS, but AWAYS, HOMES and NO SCORES.
- SUCCESSFUL** SELEC guarantee that Poolwinner performs significantly better than chance.
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AT LAST! No more struggling for hours to get the fixture list into the computer. FIXGEN has been programmed with all English and Scottish League fixtures for 1988/89. Simply type in the date, and the full fixture list is generated in seconds. Fully compatible with Poolwinner. Yearly updates available.

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THE PUNTERS COMPUTER PROGRAM NOT JUST A TIPSTER PROGRAM, Coursewinner V3 can be used by experts and occasional punters alike. You can develop and test your own unique winning system by adjusting the analysis formula, or use the program in simple mode. Coursewinner V3 uses statistical analysis of major factors including past form, speed ratings, course statistics, prize money, weight, going, trainer and jockey form etc, etc. It outputs most likely winners, good long odds bets, forecasts, trifcarts etc. The database includes vital course statistics for all British courses. You can update the database - never goes out of date. FULL PRINTER SUPPORT.

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£2.99



ALL PRICES INCLUDE VAT & POSTAGE



THE GOOD SOFTWARE FILE

ACCOUNTS/PAYROLL • UTILITIES

PLUSSES • MINUSES

- ▲ A very comprehensive and professional package
- ▲ Very good audit trails
- ▲ Sales/purchase ledgers can run over different period from nominal
- ▲ Facility for handling prepayments and accruals
- ▲ Able to print full management accounts
- ▼ The size of the programs means lots of disc swapping
- ▼ All normal responses need to be in upper case

CORNIX SIMPLE ACCOUNTS

£49.95 • Cornix • 0462 682989

Simple cash-book style package which allows you to keep track of debtors and creditors (though not aged ones). Simple to use and you can make changes if you make a mistake. Slow to use for complex operations and number of entries in given period is limited, but very good simple program for small businesses.

PLUSSES • MINUSES

- ▲ Simple, easy-to-use program
- ▲ Can correct errors
- ▲ Keeps track of debtors and creditors
- ▼ Slow for complex operations
- ▼ Ability to alter figures won't please accounting purists

CAMSOFT PSIL

£149.95 • Cambrian Software • 0766 831878

Consists of five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. In terms of sophistication it falls somewhere between the Sagesoft package and the larger systems from MAP and Compact. But it's easier to run than the larger packages since all the software can be squeezed into the M drive. Good package for a small company.

PLUSSES • MINUSES

- ▲ Already set up for 8256 or 8512
- ▲ No need for pre-printed stationery
- ▲ Excellent sort and search facilities
- ▲ Invoices shown on screen as you create them
- ▼ Constant need to input full five-digit account codes
- ▼ No final accounts reports available on nominal ledger
- ▼ No facility to run the ledgers in different accounting periods

CAVALIER INSTALL

£99.95 • Load & Run • 01-639 6683

A comprehensive integrated package. Comprises 'Intact' accounts and 'Instock' stock control, available separately for £59.95 each. Well designed, easy to run and powerful enough for most businesses

PLUSSES • MINUSES

- ▲ Other packages (eg: 'Teleadd' address book) can be added
- ▲ Comprehensive range of features when used as a package
- ▲ Sophisticated pricing and order features in Instock section
- ▲ Flexible accounts, traps most mistakes, useful summaries
- ▲ Interesting forward planning facility in stock control
- ▼ Manual gives you a confusing number of options

SMALL BUSINESS ACCOUNTS

£69.95 • NewStar • 0277 220573

Using the split-screen method, the prompt-driven program leads you through the hazards of double-entry book-keeping as painlessly as possible. Again, very useful demonstration files supplied with the program. It also handles VAT easily.

PLUSSES • MINUSES

- ▲ Excellent system of screen prompts
- ▲ Good demonstration files
- ▲ One of the easiest double-entry systems for the novice
- ▼ Manual is really for the PC

SAGE ACCOUNTS

£100.05 • Sagesoft • 091284 7077

An integrated accounts package consisting of purchase, sales and nominal ledgers. For another £50 you can buy Accounts Plus which also has invoicing and stock control. Aimed at small companies with the emphasis on ease of setting up. But a number of limitations, eg. the package cannot cope too easily with rapidly increasing numbers of customers and suppliers.

PLUSSES • MINUSES

- ▲ Clean, tidy and logical screen layouts and menus
- ▲ Easy to set up and use with excellent documentation
- ▲ Good audit trails and VAT reports
- ▲ Can produce formatted trial balances

- ▼ Restrictive account numbering system
- ▼ Only single Nominal ledger and VAT analysis per item
- ▼ Does not cater for settlement discounts
- ▼ Won't print remittance advice slips
- ▼ Cramped on 9512 printer - need 17 pitch daisywheel

MAP PAYROLL

£49.00 • MAP Systems • 061 624 5662

PLUSSES • MINUSES

- ▲ Can amend and re-run at any stage (even after printing)
- ▲ Cash analysis is broken down into departments
- ▲ System prevents re-use or amendment of leavers
- ▲ Can hold up to 40 standard hourly and weekly wage rates
- ▼ No SSP calculation facility (but can record all amounts paid)
- ▼ Programs necessitate a lot of disc swapping
- ▼ No printed record of automatic tax code changes

SAGESOFT POPULAR PAYROLL

£69.95 • Sagesoft • 091 284 7077

PLUSSES • MINUSES

- ▲ Any or all employees payroll can be rerun at any stage
- ▲ Full pay history available for all employees and leavers
- ▲ Calculates average pay for holidays etc
- ▲ Very easy to install
- ▼ Limited number of additions/deductions
- ▼ Doesn't print a list of cheques
- ▼ No analysis of additions/deductions

COMPACT PAYROLL

£99.95 • Compact Software Ltd • 0306 887373

PLUSSES • MINUSES

- ▲ Supplied with test data
- ▲ Facility to change employees tax codes following budget
- ▲ Can run payroll for several companies
- ▲ Program available for PC compatibles - data transportable
- ▼ Must be run from the master discs
- ▼ Needs input form and check calculation for each employee
- ▼ Once payslips are printed nothing can be changed
- ▼ Most expensive payroll program

CAMSOFT PAYROLL

£49.95 • Cambrian Software • 0766 831878

PLUSSES • MINUSES

- ▲ Full pay slip displayed on screen, any item can be amended
- ▲ Facility for freehand narrative on any pay slip
- ▲ Uses M drive for programs to speed operation
- ▲ Built in on-screen help facility
- ▲ Search-sort routine for output to screen, printer or disc
- ▲ Uses alphanumeric employee codes
- ▼ Screen menus a bit untidy and sometimes difficult to follow
- ▼ No listing of cheques

• UTILITIES •

BRAINSTORM

£29.99 • Brainstorm Software Ltd • 0895 677845

A new improved version, reconfigured for easier use on the PCW. Works as an 'ideas processor'; you throw your ideas in any order and then use the program to rearrange them and impose a structure.

PLUSSES • MINUSES

- ▲ Quick and efficient and easy to use
- ▲ Encourages structured thinking
- ▲ Versatile; many different editing facilities
- ▲ Results can be fed into a word processor for polishing up
- ▼ Namesakes must be exact matches
- ▼ Manual is on disc, so you can't consult while using BrainStorm unless you print it out

CSTAM

£49.95 (PC/PCW) • £59.95 (PPC/PCW) • Newstar • 0277 220573

Ideal for people who do regular transfers between PCW and PC and who want to do it quickly. Supplied with CSTAM are the cable to connect the interface to the PC serial port and 2 discs with the transferring software. Number of transfer options are available: you can specify certain files, all files or no files for transfer.

PLUSSES • MINUSES

- ▲ Quick and easy to use
- ▲ Also works with the PPC
- ▼ Expensive; you can transfer data without spending money
- ▼ You need a serial/parallel interface

PRO-PERFORMER

£59.95 • Electromusic Research • 0702 335747

The only real musical add-on for the PCW. Easy to use software runs on CP/M, has a wide variety of powerful features and is icon-driven. Sophisticated recording facilities and the program will allow you to save compositions as tracks, songs or performances. Ideal for pop and classical musicians.

PLUSSES • MINUSES

- ▲ Icon-based screen
- ▲ Can record lines independently or in an arrangement
- ▲ Punch-in editing facilities
- ▲ Facility for slow recording and fast playback
- ▲ Step-time recording for strict in tempo lines
- ▲ Tracks can be looped (made to repeat)
- ▼ Manual glosses over all of the important things like arrangements

- ▼ Can't edit notes individually
- ▼ No musical notation anywhere

JUMBO

£14.95 • CBS Services • 0736 794422

Finds out in minutes the Mallard Basic command that you've just forgotten. Jumbo is simply a disc with nearly 200 lines listing every command in BASIC including a few you haven't even heard of. When you get stuck for the right command or syntax you just call up the directory and a list of file names is displayed.

PLUSSES • MINUSES

- ▲ Lists all the JetSam commands
- ▲ File lists all useful escape codes
- ▲ Very simple to use and examples provided
- ▲ You can call up Jumbo without it affecting your work on the program
- ▼ Could do it all yourself

JOB ESTIMATING & PRODUCT COSTING

£79.90 each • Cornix Software • 0462 682989

Both programs aim to provide help to small businesses by keeping track of costs. You break down the product you're costing or the job you're doing into a series of costing lines - recording quantity and price per component. Program analyses profit margins and can produce customer printouts.

PLUSSES • MINUSES

- ▲ Excellently-written manuals
- ▲ Simple and robust to use
- ▲ Changes in material costings instantly reflected in all quotes
- ▲ Neat way of doing on-the-spot quotes
- ▼ Only suitable for small to medium-sized businesses
- ▼ Can't add new components to a description once it's been set up



DAATAFAX

Basic Version £39.95 (with Microfile £49.95) with mouse £79.95 • Kempston Data • 0908 677886

Used in conjunction with a personal ring-binder, it helps you to keep track of appointments, names, addresses etc. Also prints out data in a form that will fit the average personal organiser.

PLUSES - MINUSES

- ▲ Easy to use
- ▲ Flexible to allow you to do what you want
- ▲ Generates diary pages – saves buying inserts
- ▲ Very useful for name and address organization
- ▼ Preparing the data needed can be very time-consuming
- ▼ Keeping everything up to date is tedious
- ▼ No particularly sophisticated features

PS-HEADINGS

£11.95 • ORB Systems (01 690 8534) • 8000s only

Software addition to Arnor's Protext word processor. For the first time, you can create headings in Protext documents without having to use a DTP program. Three fonts are available and two print modes.

PLUSES - MINUSES

- ▲ Fonts on offer are functional and suitable for most documents
- ▲ Printed output looks good
- ▲ Easy to use
- ▲ 13 variables available, like underlining, reverse printout etc
- ▼ Main font variation is one of size rather than style
- ▼ Not so easy centring following text

LOCOFONT II

£14.95 • Locomotive Software (0306 740606) • 8000s only

A batch of six extra fonts now available, including Old English and flowing script. You can have up to ten styles available at any one time. New characters reproduced surprisingly well.

PLUSES - MINUSES

- ▲ All accents and characters in any alphabet supported
- ▲ Very easy to use
- ▲ Cheap
- ▲ Can finally get out of that one-pattern print-out
- ▼ Can't mix styles in one document
- ▼ Reproduction is not excellent because of 16 dot limitations

FLIPPER

£24.95 • Software Imperatives (0453 886931) • 9512/8512.



This program allows you for the first time to flip between CP/M and LocoScript II without resetting the machine. Ideal for easy import/export of data.

PLUSES - MINUSES

- ▲ Quick, simple and easy to use
- ▲ You flip back to where you left off in the other environment
- ▲ Works with most CP/M programs and BASIC
- ▲ Works with all variants of LocoScript 2
- ▼ Won't work with games that ignore SHIFT EXTRA EXIT
- ▼ Won't work with LocoScript 1 or Mini Office
- ▼ Be careful of hardware when flipping; state of printer or disc drive for example

PRO-PUNTER

£57.50 • DGA Software • PO Box 36, Ashton-under-Lyne OL7 9AJ

Not only will this program tell you the most likely outcome of a horserace and calculate the true odds about the probable result, it will also single out those events where the combination of factors is the most advantageous. Replaces gambling element with soundly-based mathematical probability.

PLUSES - MINUSES

- ▲ Best attempt yet to apply probability to racing odds.
- ▲ Analyses past form in depth
- ▲ Used properly, over 60% winners claimed

- ▲ Advises you when not to bet too
- ▼ Entering race data is time consuming
- ▼ Expects the user to be a serious racing fan

STOCKMARKET

£39.95 • Meridian Software • 01 858 7057

Good for the investor who wants to keep track of the value of his portfolio and an orderly record of dividends for tax purposes. Prices can be shown in graphic format for buy and sell indicators based on moving averages.

PLUSES - MINUSES

- ▲ Very good manual
- ▲ Dividend printout suitable for tax returns
- ▲ Records share-holdings, dividends and cash accounts
- ▲ Easy price movement analysis by moving average method
- ▼ Capital gain calculation does not allow for indexing
- ▼ Fail safe default values are irritating

MARKET MERLIN

£39.95 • Burncastle Associates • 0483 36591

Uses an interesting form of technical analysis based on point and figure graphs, coupled with ten analysis models to pick undervalued shares. The user can feed in subjective data which helps refine the buy recommendation. 80% success is claimed.

PLUSES - MINUSES

- ▲ Unique ability to recommend buy shares
- ▲ Easy to use
- ▼ Comprehensive manual marred by poor spelling and presentation
- ▼ No ability to record sales, purchases or holdings
- ▼ No indication of when to sell

SHAREMASTER

£99.95 • Synergy Software • 05827 2977

A powerful and versatile program designed for the investor who likes to buy and sell shares according to technical analysis. Prices can be charted using moving averages, exponentially-weighted curves, HiLo, point and figure, etc. Records transactions, dividends and dealing costs.

PLUSES - MINUSES

- ▲ Very powerful features for technical analysis
- ▲ Comprehensive and well-written manuals
- ▲ Good graphics
- ▼ Data is not output in a form suitable for tax returns

ORGMENTOR

£19.95 (with binder £29.95) • HPA Systems • 08697 508

Based on making the best of LocoMail (the LocoScript mailmerger). Orgmentor is a suite of programs to create a diary, name and address file. It also has a task manager (or priority lister) and a money manager. Programs are usually run by merging a program with the latest datafile.

PLUSES - MINUSES

- ▲ Works in the familiar ground of LocoMail
- ▲ Task Manager forces you to think in an organized way
- ▲ Basic accounting facilities
- ▲ Flexible diary format
- ▼ A little complicated to work
- ▼ Needs LocoMail to use it
- ▼ No continuous paper with the package

LOCOKEY

£14.95 • Locomotive Software • 0306 740606

This successor to LocoChar is a keyboard customiser which means that any key can be made to produce any letter. At the touch of one button, the program will reproduce any one of the sixteen LocoChar-defined characters.

PLUSES - MINUSES

- ▲ Enables customisation to any distribution of keyboard letters (ie, non-QWERTY keyboards)
- ▲ Handles any combinations of accent and character
- ▲ Works with LocoChar defined characters
- ▼ Will only be of limited use

SUPER TYPE II

£149.50 • Digita International • 03954 5059

A program for users of LocoScript (1 or 2) and CP/M programs, which modifies the fonts (ie, the look of the characters) used by the PCW printer. SuperType has 4 'business' fonts and 4 'novelty' fonts, like Olde English. It works by directly altering the relevant files for LocoScript or CP/M, so you only need run it once – after that, the new chosen font is automatically available.

PLUSES - MINUSES

- ▲ Once installed, you can totally forget it's there
- ▲ Genuinely useful range of fonts available
- ▲ Works with LocoScript as well as CP/M
- ▲ All LocoScript's print size and style options still work
- ▲ Doesn't take up any extra disc space
- ▼ You can't mix different fonts in the same document

MOUSE & DESKTOP

£79.95 • AMS • 0925 413501

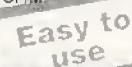
A whole new way of using your PCW – banish CP/M for ever. For your money you get a mouse and software which emulates the GEM Desktop environment found on PCs. All commands are given by pointing to icons on the screen, not typing at the keyboard. You also get calculator/calculator (etc) utilities.

PLUSES - MINUSES

- ▲ A genuinely useful desktop organiser, with useful utilities
- ▲ Well presented and easy to use
- ▲ Makes CP/M commands easy
- ▲ The mouse can be used with a variety of other software
- ▼ Takes up a lot of space in the M drive
- ▼ Utilities not available while running other programs
- ▼ Can be irritating if you are proficient with CP/M

MONEY MANAGER PLUS

£39.95 • Connect Systems Ltd • 01 743 9792



The souped-up version of the personal accounts package Money Manager which would serve a small business quite nicely. It acts as a daily diary, over 12 months, recording all incomings and outgoings between up to 9 accounts. Similar transactions can be grouped together, and simple reports can be printed. Money Manager also available for £24.95.

PLUSES - MINUSES

- ▲ Simple to use, need no accounts or computer knowledge
- ▲ Standing orders can be defined for each month
- ▲ Detailed and summary statements can be printed out
- ▲ VAT reports can be separated out
- ▲ Can present results as bar charts
- ▼ No audit trail integrity
- ▼ The statement format is not very flexible
- ▼ Transfers between accounts are not cross-referenced

PERSONAL TAX PLANNER

£25.95 • Digita International • 03954 5059

Simple program which asks you all the questions relevant to your year's tax affairs, and prepares your tax return claim (or bill!). Can, for example, find out whether married couples would be better assessed separately or not. Annual updates available.

PLUSES - MINUSES

- ▲ Simple to use
- ▲ Needs a minimum knowledge of the tax law
- ▲ Forces you to keep your tax details in one place
- ▼ Limited application – might only use it once a year
- ▼ Can't handle unusual cases
- ▼ Program updates (for a new allowance level) cost £10

THE KNIFE PLUS

£19.95 • Hisoft • 0525 718181

An essential tool for retrieving data from corrupted discs. Knife Plus will copy all uncorrupted sectors on to a fresh disc which you can then patch up without risking the original.

PLUSES - MINUSES

- ▲ Copies all uncorrupted data from damaged discs
- ▲ If boot sector damaged, will copy good boot sector onto disc
- ▼ Requires some knowledge of basic disc structure
- ▼ Manual not written for beginners

WISE ONE

£34.95 • Swallowssoft • see below

An expert system – you input rules and information and Wise One becomes an 'intelligent' program which can, for example, do simple diagnoses according to symptoms you type in. From PO Box 107, Walton on Thames, Surrey KT12 5PQ.

PLUSES - MINUSES

- ▲ Power to be genuinely useful
- ▲ Elementary arithmetic
- ▲ Help screens can be set up for the user
- ▼ Obscure way of writing rules – need programming instinct
- ▼ Manual dry and academic



THE GOOD SOFTWARE FILE

TAS-SIGN

£29.95 • Tasman Software • 0532 438301

Takes time to print out but you can print signs of up to five lines of text up to seven inches high with up to 32 characters in each. Four fonts, eight hatching patterns, and you can print lengthways on continuous paper for long signs.

PLUSES-MINUSES

- ▲ Wide range of fonts and shadings
- ▲ Long signs will print out in 'landscape' (sideways) format
- ▼ Long signs take time
- ▼ Some symbols (yen signs etc) won't print out on PCW

DISC MATE

£24.99 • Siren Software • 061 848 9233

Disc Mate is a set of CP/M utility programs which bring complex disc recovery operations within the scope of CP/M novices. Facilities include recovering erased files and making files 'read only' (ie. unerasable).

PLUSES-MINUSES

- ▲ Simple on-screen instructions once you've got started
- ▲ Allows easy recovery of accidentally erased files
- ▲ 'ZIPDISC' program speeds up disc access by 10 to 20%
- ▲ Friendly file copying program in case you dislike PIP
- ▲ Can read both single and double density discs
- ▼ You'll need to understand CP/M basics

JEEVES WITH KEMPSTON MOUSE

£79.95 • Kempston • 0908 677888

A 'desktop organiser' which lets you do the mundane functions of copying, deleting files etc, by icons and pointers – you use the mouse to move a pointer over the symbol for 'delete' such as a

Desktop publishing – or DTP – packages enable you to produce your own newsletters using your PCW. They come with a variety of fonts of a range of sizes for headlines and body text and a selection of graphics to include in your creations. You read in your articles prepared by a word processor into text boxes. If you can't edit the text from within the program, you have to go back to your word processor to fine-tune the article to fit – this is very tedious. Then you put your graphics in graphics boxes, make up your headlines, and then lay out your publication on the PCW by juggling the position of your boxes on each page. Finally you can get a copy of each page on your printer (though not if it's a daisywheel, of course, as on the 9512) and photocopy the results.

Graphics can be taken either from the package itself or from TV/video via a digitiser.

The results won't be of sufficient quality to compete with the professionals, but for club and company newsletters, leaflets, posters and small publications, DTP could be invaluable.

THE DESKTOP PUBLISHER

£29.95 • Database Software • 0625 878888

Tremendous value for money. Graphics and text boxes can be easily moved around and page layout is clear. You can edit text from within the program, using LocoScript-like commands to set bold and italics. Good range of fonts and graphics too, at half price of its rivals! Mouse optional for £50 more.

PLUSES-MINUSES

- ▲ Text editor allows you to edit articles to fit the space easily
- ▲ Boxes and general layout easy to manipulate

UTILITIES • DTP

dustbin and then click a button on the mouse. Also has built in calendar, clock, calculator etc.

PLUSES-MINUSES

- ▲ Avoids a lot of dreaded CP/M commands
- ▲ Continuous time display
- ▲ Works from within SuperCalc, BASIC, dBase, WordStar, Cracker, Sage Accounts
- ▼ Problems if you try to run it with just about anything else
- ▼ Calculator, watch, notepad and calendar will cost you £5

Instruments and sport covered.

- ▲ Drawings generally of a high standard
- ▼ Very expensive
- ▼ Solely clip-art, no fonts
- ▼ Only exotic animals are shown, not ordinary ones
- ▼ Drawings sometimes a little small

STOP PRESS

£49.95 • AMS • 0925 413501

Powerful

An excellent DTP Package, very strong on graphics, very well designed, and once you get used to it, easy to use. Sophisticated text handling features such as autoflow, but can't edit text – that all has to be done in your word processor before flowing the text in. A lot of good fonts supplied too.

PLUSES-MINUSES

- ▲ Excellent graphics facilities, good as any graphics program
- ▲ Wide range of text styles
- ▲ Menu and key commands system suits beginner and expert
- ▲ Text autoflow
- ▼ No text editing ability
- ▼ Some quirks in text handling – apostrophes, spacing, etc.

HD COMPUTER AIDED GRAPHICS

£7.99 • HD CAD Design • 04867 81394

An add-on package of clip-art for use with Stop Press DTP program. Varied selection of images that can easily be modified to suit personal taste.

PLUSES-MINUSES

- ▲ Clip-art is varied
- ▲ Drawings generally of a high standard
- ▲ Some of the digitised pictures are excellent
- ▲ 12 extra fonts are available on the disc
- ▲ Fonts designed on 36 by 36 pixel grid so they blow up well
- ▼ Some of the digitised pictures look amateurish
- ▼ Still strange fetish for doors and windows

NEWSDESK INTERNATIONAL

£49.95 • The Electric Studio • 0462 420222

Powerful

Versatile package with a very wide range of graphics facilities and high quality headline text. Page make-up is flexible, though the program can be a bit cumbersome, mainly in text handling. Same graphics facilities as Electric Studio's 'Art' package.

PLUSES-MINUSES

- ▲ Good control over the elements on the page
- ▲ Powerful graphics facilities
- ▲ Good quality print in headlines and large fonts
- ▲ Can use font editor to create your own high quality fonts
- ▲ Text handling slow and cumbersome
- ▼ Not easy to undo mistakes

FLEET STREET EDITOR PLUS

£49.95 • Mirrorsoft • 01 377 4645

The most versatile and powerful package. You can create template-like 'page dummies' if you use several pages of the same format, and handling of text, setting of margins and size of text boxes etc, is well controlled. Tends to stop working abruptly for no reason though and uses memory space extravagantly.

PLUSES-MINUSES

- ▲ Versatile integrated package
- ▲ Text handling and editing sophisticated and controlled
- ▲ Can set up page dummies for regularly used formats
- ▼ Crashes occasionally
- ▼ Odd use of memory in text editor
- ▼ Still lots of serious bugs even now

NEXT MONTH

The guide continues with DATABASES, COMMUNICATIONS, EDUCATIONAL PACKAGES and PROGRAMMING. After that it's SPREADSHEETS, GRAPHICS and GAMES and the month after that it's back to this month's categories.

Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available from our Somerton address at £1.75 each.

Meanwhile, if you are aware of any significant errors or omissions in the files as published, please let us know. We want to maintain it as THE authoritative guide to PCW software.

MR DTP GRAPHIC LIBRARY

£12.50 - £14.50 • Mr DTP (32a Rumburgh Rd, Lowestoft, Suffolk N32 4JL)

A complete library of images for The Desktop Publisher supplied on 3 clip-art discs.

PLUSES-MINUSES

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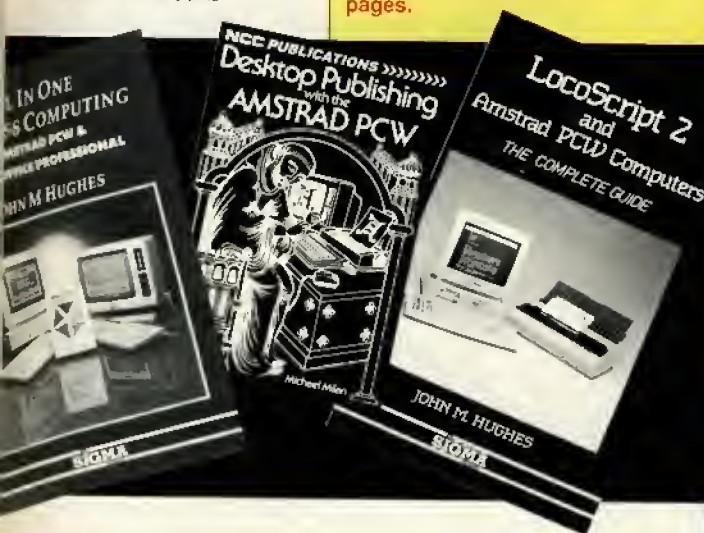
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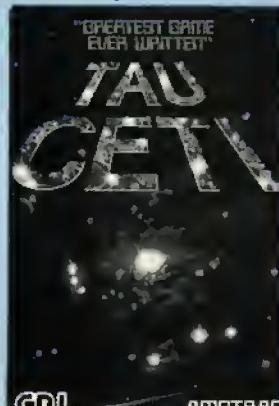


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In one package, this does just about everything it's possible to do on a PCW — if you want to break free of LocoScript, this amazing value program is for you.
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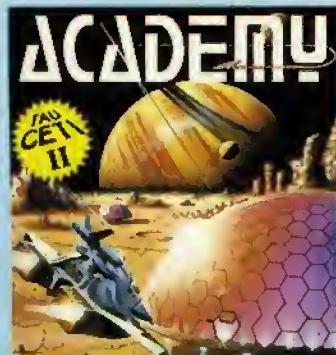


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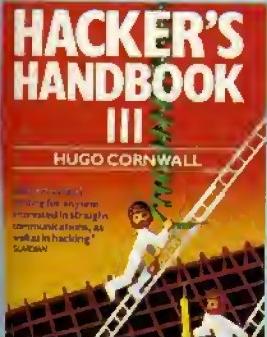
We aspire to the belief that you would like to collect your copies of 8000 PLUS, and to that extent we have produced this superb gold-embossed green binder, which allows you to collect 8000 PLUS as it comes along. Buy one and watch your collection grow into the definitive library of PCW info.

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by Hugo Cornwall • £6.95



There is no other book like this! Hugo Cornwall clears up all the mystique of hacking, while also providing an exacting code which all hackers would do well to use as both map and compass.

A bestseller when it first came out, this new edition goes from first comms principles to networks, videotex, radio computer data – all written in entertaining prose that carries you along with the enthusiasm of discovery. For the general reader and specialist alike.

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Subscribe to the leading Amstrad PCW magazine and we'll send you essential goodies worth over £12!

Yes! Paying £17.95 for a years subscription means 8000 Plus will be sent to your home for a full 12 issues, and you join the growing band of people who receive their copy directly from the printers. 8000 Plus has a strong family appeal, as is shown by the fact that it has one of the highest percentages of postal subscribers of any magazine in the UK.

Ask anyone who knows; they'll tell you 8000 Plus contains more up-to-date, informative and unbiased information about its chosen subject than any other you're likely to find.

And in case you need a bit more persuading, we've put together a gift pack that will appeal to anyone who uses a PCW, professional or hobbyist. You'll wonder how you ever got along without them! Worth more than £12, we're putting them your way just as soon as we can. It's the easiest way to becoming the compleat PCW owner!

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1 set of highlighter pens (red, green and blue)

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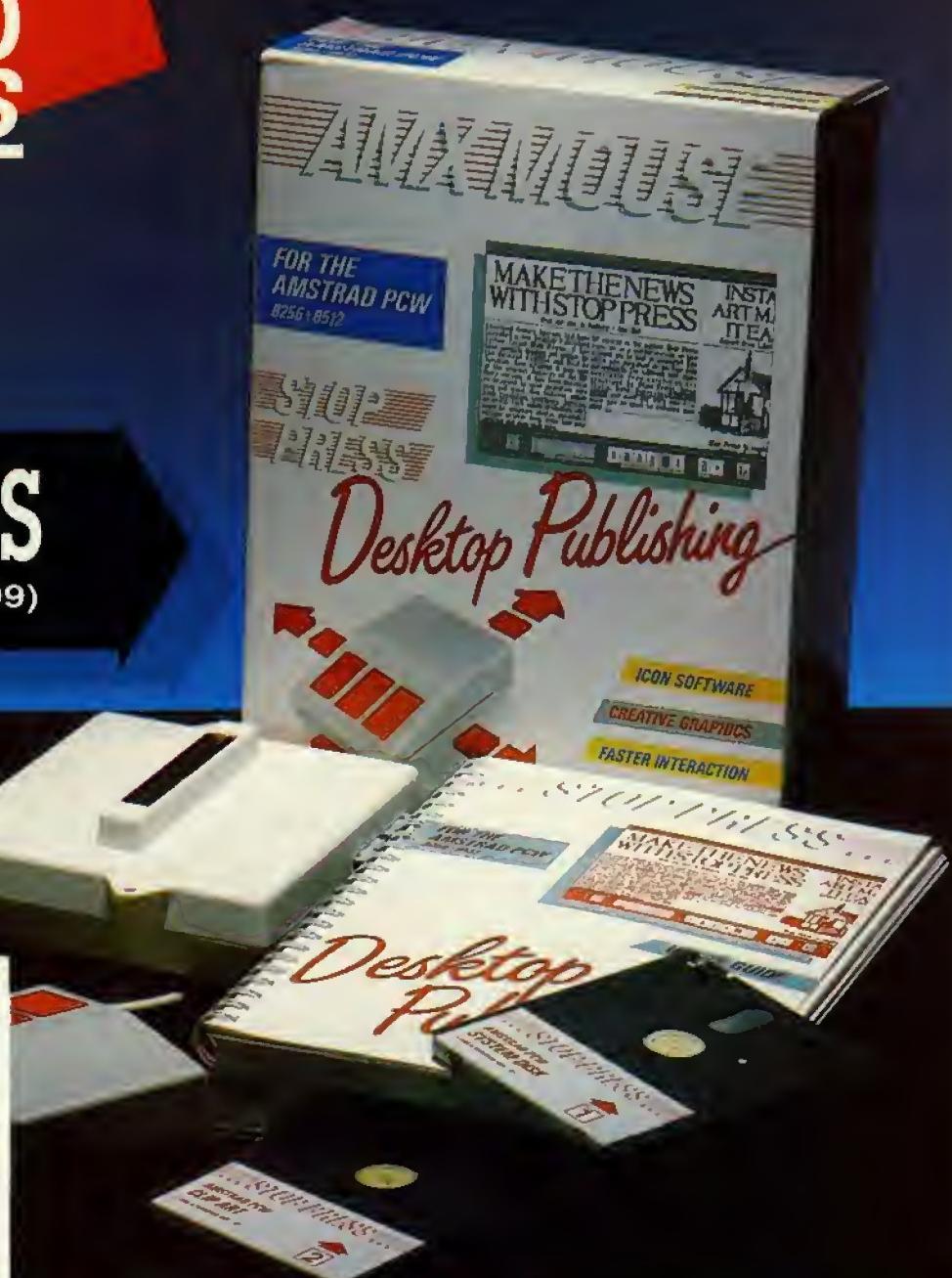
There are sensible fonts
AND THERE ARE EXOTIC FONTS
And of course the statutory Old English font
So Whatever You Want You Will Find
One to Suit -
Find it doesn't quite fit your work
Or else **Stretch it to fit**

▲ 'Just some of the fonts available on AMS' Stop Press'

Desktop publishing – doing page makeup on your computer instead of the old cut-and-paste method – is the boom area of home computing. All the national dailies are switching over to DTP methods – and so are thousands of PCW owners, to produce newsletters and flyers.

Want to try your hand? The best developed DTP package for the Amstrad PCW range is now available from Future Publishing at an all-in price of £74.99. Stop Press's incredibly versatile and powerful software plus mouse will turn your PCW into a DTP machine.

The Swiss-made mouse is probably the best currently available and offers high resolution movement all over the screen. The software makes the best possible use of this sensitivity, featuring as it does a wide range of DTP facilities which would probably cost three times as much on higher-priced computers.



- Just a few of the features are: -
- 14 different fonts supplied
 - Type sizes from **9 to 96 points**
 - Clip art ready made to insert into files
 - Text entered **directly or imported** from word processor
 - On-screen text formatting, including **autoflow** around a picture
 - **Draw, spray or paint** - your own designs or those supplied
 - Up to **nine columns** per page!
 - Bold, italics, underline, reversed boxes
 - Centering, ragged right and literal justification
 - Prints up to **108 pages** in one go
 - **Shape drawing** includes triangles, squares, cubes, circles and ellipses
 - Compatible with **digitised pictures** from MasterScan, Electric Studio and the Rombo digitiser
 - **9512 compatible** using an Epson compatible dot matrix printer

Altogether, this is a superb way of getting to grips with DTP. We don't expect to offer any other DTP package through these pages again, because we've held back until we were absolutely sure that this was the best deal. So here's your chance to get going.

Save £15 on the manufacturer's recommended retail price by placing an order with our mail order department (telephone 0458 74011)!

Newsletters, fanzines, posters, letter heads, leaflets, charts, graphic business reports, flyers... all are now within reach, allowing your imagination as much freedom as possible. And with Stop Press there's no better way into the world of DTP.

Order Code 8023

POST SCRIPT

A battery of badinage, barracking and bathos bandied around by a bankrupt Ed.

Yes folks, B is the letter of the month. Got one in your bonnet? Tell all – this is the forum for discussion about the PCW world. Or even the real one. Write to us at PostScript, 8000 Plus, 4 Queen St, Bath BA1 2BL.

There's an international look to this month's letters: correspondents from Finland, Portugal, Poland, and Watford (there's your bathos). Now read on...

Poles apart

In your September issue you asked one of the competition winners a question. The winner was Marek Lasota from Warsaw, Poland, and the question: how many PCWs are there in Poland? As it happens, I also live in Poland (not in Warsaw, though) and I am also a PCW user, so I hope I am at least a bit entitled to answer. So: not many, really. At most there is a four digit number of them (with the first digit rather small). I do understand the situation on the micros market in Poland.

First of all, micros are relatively expensive. In fact they are even incredibly expensive; the PCW's price is almost that of the small car (a new one). Then, you have much difficulties with good software – professionals are working for PCs some of them for Commodore Amiga or Atari ST series – sorry if you consider these names foul words (and you should a magazine such as yours). Polish currency is blocked, so it is not easy to put your hands on Mini Office or Stop Press.

The most popular micros (I mean those owned by private persons) in Poland are – I am ashamed to say – Atari XE and XL series and Commodore C64 with a small addition of C128. People who are professionally interested in programming are running for IBMs

and its clones. The PCW has its own enthusiasts and supporters (I am one of them). It is cheap – as for the full set of CPU, monitor, keyboard, disc drive and printer the price is relatively low. It is running the best word processor I know of, that is LocoScript (I have never tried Protext but I am not sure I would like to). It has some pretty good implementations of Pascal or C. I am a mathematician myself

and – besides – I do a lot of translation (English to Polish, mainly science fiction). I found the PCW totally satisfying on both fields.

So – there are not many PCWs in Poland, but the few of them that are, are in the hands of people who knew what to buy.

**Piotr Cholewa
Poland**

A question of letters

I have a number of questions that I hope you will be able to help me and others with.

1. I use LocoScript 2 with LocoSpell. As I am dyslexic this is the best investment for me. I have the Amstrad PCW8256 with memory and drive upgrade, and I wish to use Supertype 2 as well as LocoSpell. Can you please tell me if there is any way to load my start of day disc in drive B on a 706k disk as this will allow the space to use all the functions that I need, thus saving me chopping and changing files from disc to disc.
2. Will you be publishing any tips for the use of LIB.COM (CP/M)?
3. Can you tell me if there is any way to convert Fleet Street Editor Plus and Mini Office Professional to load in drive B and to continue to run in B?
4. Can you tell me the name of a good book that covers in detail the functions of CP/M on the PCW?



And a quick note of praise for your mag and the Amstrad PCW. It has changed my life, before I had the PCW I never did anything that involved pen and paper but now as you can see I am sending letters and so much more.

**Mark Malcolm-Brown
Cambridge**

8000 PLUS If you start up LocoScript with a disc in drive B which has a dictionary in group 0, it will automatically be copied to the memory on starting up. That should solve your first problem.

As for LIB.COM, the next couple of issues may surprise you.

There is absolutely no way to load Mini Office and continue to run it from drive B. It is impossible. Nobody in the world can do it. (This is the best way to get someone to write in saying how it can be done).

The standard books on CP/M are *The Amstrad CP/M Plus* (Clarke & Powys-Libbe, MML Systems, 01 247 0691) and *The Digital Research CP/M Plus Manual* (£14.95, Heinemann, 01 581 9393).

Dyslexia is the butt of a lot of feeble jokes, and its image is clouded by the fact that it is commandeered by a lot of people as a fashionable excuse for just being bad spellers. So it's nice to know that those who have it can also benefit from the quiet technology revolution. The PCW isn't just for businessmen and writers!

Time flies

The method of adding hours and minutes in spreadsheets suggested by Mr Buddin in the October Tip Offs appears to have some brackets moved about in his formula no 1. (The one that first converts entered hours and minutes to decimal hours).

He also suggests that there could be a degree of inaccuracy in the final total, therefore I suggest the following for formula no 1:-

$((B1 + 0.00001) - \text{int}(B1)) / 0.6 + \text{int}(B1)$

The small value of 0.00001 is to prevent certain combinations of added hours and minutes from appearing, for example, as 7.60 instead of 8.00. Formula no 2 for displaying a final total in cell B4 is unchanged.

**Alan Hepworth
Radstock, Bath**

Not on the tip yet

Four weeks ago I purchased a PCW 8512. Within a few days I was wondering why! Although in retirement we are all advised to keep our brains active, there must be a limit, and I thought I had gone over that limit with LocoScript 2.

However, my life (and attitude to same) has changed – a) I discovered your excellent 8000 Plus in the local newsagent b)

signed up for a 12 months subscription c) requested and received a number of back issues and d) have read your TIP OFFS section and others.

I know you are busy but *please* issue the necessary instructions for the production of reprints of the TIPOFFS collection 1-6, or even an update! I do not wish to get 'the lady in the Barn' in trouble but she did say she had received many calls like mine and said 'the editor did not think the exercise worthwhile'.

While writing, may I congratulate all your Sales/Order Staff - the response time to a telephoned order for subscriptions and various other items does your company credit.

B J Joint
Watford

PS I have bought Mini Office to be getting on with and am gaining confidence every hour. It's very good, but it's a shame it hasn't MiniSpell!!

8000 PLUS Not worthwhile? Don't believe a word of it! You'll be glad to know we're putting together a collection of all the tips we've published ever about anything.

Details in 'Keywords' on page 3.

Here comms trouble

Enough is enough. For some time now I have suspected an unwritten bias against the area of computer communications in your otherwise wonderful magazine. Your

response to the letter on Email in the September issue has finally made this explicit. Please do something to change your views, and indeed to change the coverage in the magazine, for it is actively unhelpful of you to perpetuate the idea that comms is not for ordinary people: the more people stay away from it the less use it is.

For the record I am a journalist and have no specialist knowledge of computers, hardware or software. Anything I can do on my PCW can be done easily by anyone else. I have an 8512, a Miracle WS4000 modem that was simplicity itself to connect, run the Sagesoft Chit-Chat package and subscribe to Microlink. Easily 50% of my time at my PCW is spent this way, rather than word processing.

All I have to do to get working is plug the modem into the phone line, turn on the computer and insert the software (self loading). I select Microlink from the menu and the software (which was a doddle to set up) dials the number and connects me automatically. Unlike your correspondent, this has so far not involved me remembering a single 'ridiculous key stroke'.

Once on Microlink, I have to type 'ee' and then 's' to send a letter by Email. Not too hard, I think you will agree. The problem comes with the difficulty of finding anybody to contact, so widespread is the comms terror. And this is where your attitude is so counter-productive. Many people like me

would benefit if only they hadn't been led to believe that communicating computer to computer is 'too complicated and unreliable'.

As just one example I have broken a big story, which involved collecting a great deal of background information, without once leaving home to read a single cutting or queue up at a companies' house. Microlink gives you access to the commercial databases that make this possible. Profile offers key word searches through a large number of national newspapers; this means you can, for example, select every reference to 'bumble-bees' in, say, the FT and the Sunday Times over the past two years, something which not even the most sophisticated of non-computerised reference systems can offer. ICC, Jordans and Infocheck enable you to find any British company that, say, has its registered office at 'The Hive, Hove, Sussex' and discover who owns it. All the information can be easily stored on disc, edited and printed out.

It is true that all this costs money, but the readership of your magazine is wide, and not just restricted to hobby users on pocket money budgets.

An additional point: I would no doubt enjoy running some of your Listings. But as a freelance I value my time too highly to spend ages typing them in. If you, like Computing with the Amstrad (hiss),

also offered the listings through Microlink, it would be a matter of a few minutes to download them on to my own disc.

As this letter has turned into a long commercial, I will finish with some niggles; Sagesoft have set up ChitChat in a way that makes it not the best software for the big American databases, Dialog and The Knowledge Index. And their text editor doesn't like large files. Also, try as I might, I have never succeeded in sending a telex through Microlink. An online news service would be helpful, as the one on Prestel is useless.

Sebastian Cody
London

8000 PLUS The next few issues may surprise you.

Pro-scribed

I use Protext as well as LocoScript, though for different purposes. I have occasionally needed to transfer text from one to the other. Transferring LocoScript text to Protext is easy, using the ASCII conversion option in LocoScript, but I haven't yet found a way of doing the reverse. If I try to insert a Protext document into a LocoScript template I sometimes get practically nothing apart from the first word or so, and on other occasions get the whole text, but with some odd substitutions in many of the words. Can you help?

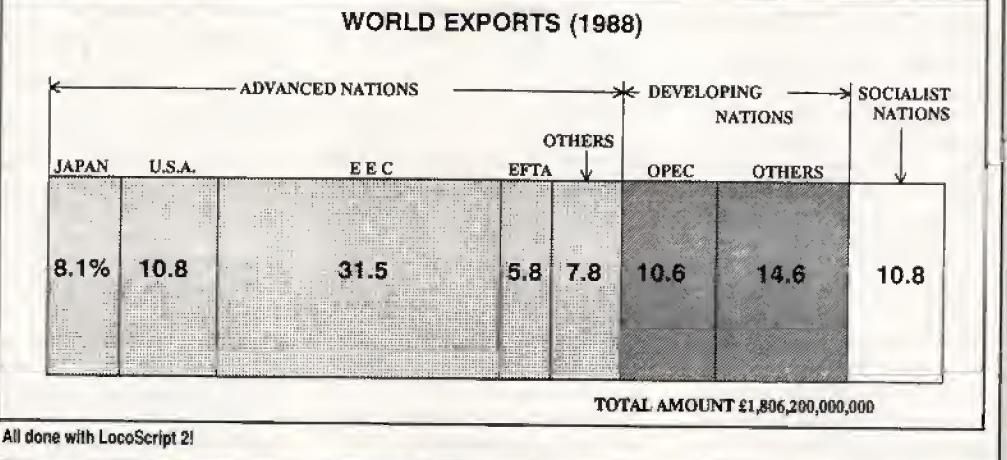
M S Ruddock
Banbury

8000 PLUS To insert a Protext document into LocoScript, first put a ruler line at the top of the Protext original which is, say, two thousand characters wide, format the document with *ft* and save as normal. When you 'Insert' this ([f1] LocoScript 2, [f7] LocoScript 1) into a Loco document it should be OK, certainly in LocoScript 2 anyway. The occasional capital sigmas and lower case alphas can be removed by [EXCH], using 'Super Shift' to enter the Greek letters to be replaced.

Guten organ

I recently needed to produce a list in alphabetical order of just over 800 organ-building terms in connection with the Esperanto section of a multilingual organ building dictionary in which I am collaborating.

Having carefully typed into 'Arnold' my 8256, the second index maker provided in the listings section of your September 1987 issue, I loaded the ASCII version of my text and waited. In a very short time I was greeted with the following error message: "Subscript out of range in 90".



All done with LocoScript 2!

Easy for you to say

I was interested to read DIY GRAPHICS (Sept '88) but would wish to correct one point. In the article, discussing the possibility of inserting graphics into a word processor document, the claim is

made that 'you can't do it in LocoScript'. Not true! I enclose two pages produced on a PCW 8256 using LocoScript 2 and printed by laser. Without leaving LocoScript it is possible to create any graphic effect which can be

done with Basic GSX, but it is much easier using the bundled word processor, and laser printed output is so much better.

J Wollaston
Brighton

8000 PLUS OK, I was completely wrong. I should've said 'you can do graphics instantly and easily in LocoScript provided of

course you have a list of typesetting marks and a two thousand pound laser printer next to your PCW.'

POSTSCRIPT

As the text did not in fact include any subscript I wondered whether the trouble was lack of memory space for proper functioning of the program, and this seemed to be borne out by the fact that when confronted with up to some 450 items – just over half the complete text – the program worked perfectly and very rapidly, too.

Very well, I innocently thought, I will betake me to my brother-in-law's 8512 and do my indexing there. Result: the same error message appeared as on the 8256 whenever the machine was asked to handle more than approximately 500 items.

Finally, in desperation, I typed in the first, shorter and simpler program, which you suggested was only suitable for short lists, due to its lack of speed. Success! True, the indexing took Arnold about half an hour but it did the job without complaining even once, allowing me to have my tea in peace.

Can you please enlighten me as to what goes wrong with your second more rapid program?

By the way, 'Arnold' owes his name to my wife, who has now, after a year or so, more or less – come to terms with having a computer in the house and having me disappear for hours on end into what used to be a spare bedroom but now is ominously referred to as 'The computer room'. I wonder if any other 8256s have acquired similar status as family 'pets' with a name?

David Hill
Harlow

8000 PLUS Just alter the `DIM w$(500)` in line 10 of the program to `DIM ws$(1000)` or whatever you like. That makes the maximum capacity of the sorter bigger.

And as for other 8256s having acquired 'pet' status with names... I hope not.

Finn lines

As a user of a very early version of Fleet Street Editor Plus program for an Amstrad PCW 8512 I fully agree with Mr Hobart (8000 PLUS September 1988) concerning the number of bugs and Mirrosoft's total unresponsiveness to enquiries.

I have found the following bugs in the software:

- you can print a publication only once without reloading the software from beginning; the text gets corrupted, eg, part of text from page 2 is mixed with text from page 1 on page 1.
- you cannot have two adjacent pictures without any text between. If you try the second picture appears twice and even then is not completely correct.

– the page is too long for the Amstrad PCW printer when using single sheet feeding.

– the [RELAY] key in the Layout editor functions as a start strike and not as a relay.

– when editing an old text the editor adds two blank lines to the beginning of text.

– if you do 'box column'/remove box/column etc several times the column becomes narrower every time.

Have I to buy another more reliable desk top publishing package?

Antero Airola
Finland

8000 PLUS Er – how can I put this... Yes.

Protect and survive

I read Mr Stevenson's account of the requirements of the Data

Protection Act (Postscript, October 1988) with interest. However, I believe his conclusion that 'staff reports' entered onto a computer in a purely text format using a word processor, can be regarded as being outside the Act is in error. I corresponded at length with the Deputy Data Protection Registrar, Mr F G B Aldhouse. I hold names and addresses of my correspondents on my computer as part of the processor exemption only applies if the PCW is used as the equivalent of a typewriter, and no copies of the letters produced are retained as computer files. Hard copies only are permissible without registration!

J MacLachlan
Yeovil

8000 PLUS Before all of you who've ever stored a letter on disc go and pay £40 to register as a data user, rest assured.

Registration is compulsory for anyone who stores information about living people and references them by name – so if you have your letters on disc it applies to you (unless of course you only write letters to

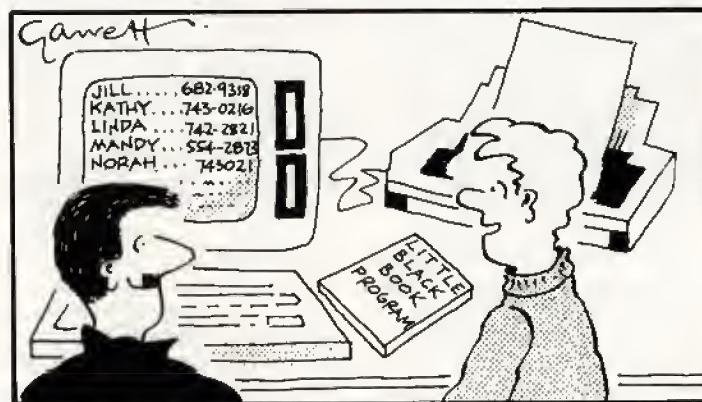
dead people). Fortunately *purely private* use is exempt; you only have to register if you use your PCW for business. If in doubt ring the Registrar on 0625 535777.

SuperCalc printing

I note with interest Mr G Hayward's letter in September 8000 PLUS and your reply, which in substance was also published in the February 1987 TipOffs feature.

I tried this in 1987 without success and was prompted to have another attempt but again with similar results. When keying in the codes as suggested by you nothing comes up on the screen nor does the printer produce high quality. In effect, we have a choice of a screen dump at about Pitch 17 or Draft quality. Is it possible that we have an incompatible SuperCalc?

A further point: the Supercalc manual refers to CTRL and ESC



"I HOPE YOU'RE REGISTERED UNDER THE DATA PROTECTION ACT"

keys. Can you confirm that these are ALT and EXIT on the 8512 keyboard.

A G Mather
Guernsey

8000 PLUS The problem is that SuperCalc sends codes to the printer automatically any time you print. If these happen to be, say, the code which selects condensed text, then even sending the code for 12 pitch manually gets overridden. You have to reconfigure this code to zero using the INSTALL program. Run INSTALL and select the 'Modify printer' option, select item 8 to change and give zero as the new printer code. Your new SC2 will accept any of the codes given previously.

Yep, [ALT] on the PCW keyboard corresponds to [CONTROL] on most other keyboards and [ESC] is [EXIT]. For example, CHR\$(27) is the ESC or 'escape codes'. Just as you'd type CHR\$(27) + "E" + CHR\$(27) + "H" to clear the screen in BASIC, pressing [EXIT][EXIT]H in CP/M does the same.

Port of call

Sorry for disturbing you with my

PCW problems, but those who should assist us in Portugal – Cominfor, the Amstrad representatives for this country – are too busy with bigger machines like PC and do not pay much attention to those poor ones who bought typewriters named PCW.

I am using my machine – a PCW 8256 converted to 8512 – since at least three years ago and I must say that I like it very much. I am using LocoScript 2, LocoMail, LocoSpell and LocoFont (both series) and I am quite happy with the results, except for a few details.

1. When using LocoSpell I have always to use a system dictionary, otherwise it does not work with only a user dictionary.
- For English (and a few other languages) there is no problem, but for Portuguese I am making my own dictionary of Portuguese words and have to have them always mixed up with English ones.
2. If I could have an empty system dictionary, I could very easily solve the problem as I can add new words to a system dictionary, but people at Locomotive Software say they can't sell me such a system dictionary and give me no solution for a problem which I believe to be that of a large number of non English speaking people.
3. But I don't use my PCW as a typewriter only. I also use it to run programs made by myself in Mallard Basic, but I always have a small problem. .

As you probably know, Portuguese is one of those unfortunate languages where accents are necessary. Though I can redefine the keyboard to put any of these characters on the screen, I can't do the same with the printer.

3. On a back number of your magazine (August 1987 – page 84) I read about a program named HOTSHOT which would be very much more interesting if it could work with the last versions of Locoscript (I have LocoScript 2 version 2.14).

Well, I think this is trouble enough for one letter, but I would thank you very much if you could assist me with your advice and I hope to see your answer on one of the next issues of the best magazine about PCW machines that I ever read.

H Silva
Amadora, Portugal

8000 PLUS Your LocoSpell problems are over: Locomotive, being good sound cross-culturalists, are bringing out a Portuguese LocoSpell shortly. You'll also be interested in Locokey, their program which can redefine LocoScript 2 so that any

Mind your heads

I am a professional writer, researcher and photographer and I rely a great deal on my Amstrad 8512, which I have had for two years. I use Stop Press, MasterScan (I edit a couple of house magazines for small

fault, ie it does not print the tops of capital letters.

I am wondering if perhaps the printhead needs cleaning and would be obliged if you would let me know what sort of cleaning product and method to employ.

8000 PLUS You can a) take it to your local computer shop b) order a new printer mechanism for £80 from Eisenstein (0244 312986) or c) repair it yourself as per Ike Dawson's tip in last February's 8000 Plus.

You need a tiny (eg. watchmaker's)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z.

companies) Supercalc, Brainstorm, Sophos (a splendid cataloguing system for my photographs) and LocoScript 2.16 for my word processing. Until a few days ago, all was well and the printer worked satisfactorily, but recently it developed a major

If you think that there might be some other fault in the printer, would you be so kind as to advise me accordingly. If I need a new printhead, for instance, where can I get one? Amstrad are no help.

Margot Moran
London

screwdriver. With the print head still tethered to the printer by the copper braid, remove the four tiny bolts from the printing side of the head. Keeping the metal striker part of the print head uppermost (black plastic and printing face downwards) carefully ease the metal striker away from the black plastic

combination of letter and accent can be assigned to any key.

As for the BASIC problem, the easiest way out might be to define strings such as `atilde$="a"+chr$(8)+chr$(126)`. This will print an a, then backspace, then print the tilde. A bit clumsy but you can extend this and put phrases in your SETKEYS file making, say, [EXTRA]A into a phrase like " " "a"+chr\$(8)+chr\$(126) ; " and then you can press [EXTRA]a in the middle of an LPRINT statement and the required combination will be output.

Hotshot is, alas, no longer available.

Good for him

My grandson Reuben Thomas has instructed me to point out an error in the listing for 'Patience' printed in your July edition, page 59.

Line 280 should end with `INT(RND(1)*100+1)` and not with `INT(RND(1)+100+1)`. As printed, the game is always at the highest level of difficulty.

He also points out that it is wrongly named. Patience is a game for one player only. The game listed is a competitive game which has been known for many years as Pelmanism or Pairs.

Basil Rose
Abingdon

Character sketch

I was interested to read the article in September issue of your magazine, entitled 'The Good Software File' about LocoScript 2.12 having the facility to create character of ones own design. I have the 295 page manual which was supplied with my copy of LocoScript 2 and I proceeded to search through it for instructions on how to do this.

The only mention I can find, in the whole manual, comes almost at

the end, in Appendix III, I quote.. "you can also type 10 (not 16) 'user definable' characters. How to define these characters is explained in the Locoscript 2 Reference manual"

I do have another problem that I can't overcome easily. I have tried using my PCW's matrix printer for addressing envelopes but they get creased up and the roller slips. I would appreciate some assistance in that quarter too if anyone can help.

R S Chamberlain
Leeds

8000 PLUS To define your own characters you need 'Locochar' from Locomotive which lets you redefine 16 (not 10) characters - see this month's Good Software Guide on pages 78-79. It comes with instructions, and 8000 Plus did a feature on it in issue 17, Feb. 88.

Amstrad won't be happy if I say the PCW printers are cheapo things, not really robust enough to handle envelopes, so I won't. I'll just say that you can't use thick 'quality' envelopes and the thin ones you can use must be eased through by hand. Not so the 9512 printer which is stronger.

Free!

Users of public domain software on the PCW often find that a program doesn't work under CP/M Plus or that it needs installing, or that the documentation is abstruse to say the least. Your readers may be interested to know that these problems will be over if programs are obtained from the above source. An ever-increasing number of PD/Shareware programs are available and guaranteed to run on the 8256/8512 machines. Clear concise documentation is available for each program. The lists include languages, utilities, databases, text

editors, games, and so on. Interested readers can obtain lists of available programs from the above address. All programs are available upon receipt of a small copying fee plus a formatted disc.

Mick Reed
PCW Software Library,
11 Old Way, Angmering
Sussex BN16 4HQ

Dummy run

I use a DMP off the par socket as the main printer on my PCW 9512 which, as you pointed out in your October issue, will not work if the internal printer is unplugged. This is a nuisance to anyone who has to move the machine about.

Is there a dummy plug which will fool the 9512 into thinking its own printer is connected?

When I phoned Amstrad to enquire, I must have got their telephone answering parrot which kept repeating: "We don't publish technical information", even when I gave up and asked what the weather was like down their way!

D C A Layzell
Newnham

at one time) switched off without first having removed the discs, I decided to do something about it and so I pressed into use a metal sauce bottle top and a small piece of sellotape which was used to hang the top over the on-off switch.

I now have to lift up the top to switch on or off which causes me to think why I put the top there in the first place.

I am now thinking of marketing a special kit consisting of a cap and a small roll of sellotape. Given with it will be a free bottle of Heinz Tomato Ketchup. Initial price has not been fixed but will be something under £20. Any interested manufacturer can contact me through 8000 Plus.

L Morley
Cleveland



Enough of your sauce

Having on more than one occasion (somewhat bog-eyed from spending too long at the computer

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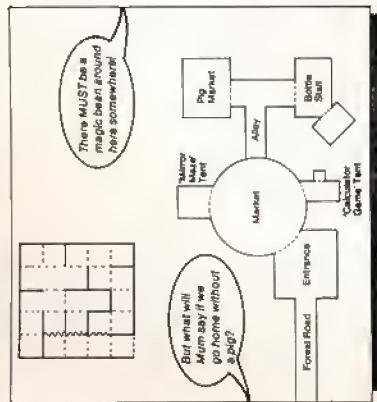
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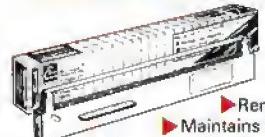
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